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ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2156

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YUGOSLAV-ALBANIA TRADE PLANS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 10 Jul 81 p 3

[Article by Mladen Baclic: "More Favorable Treatment of 'Augmented' Trade"]

[Text] Attaining a level of $115.4 million of visible trade last year, Yugoslavia and Albania doubled the volume of deliveries in both directions in the previous year and exceeded by about 50 percent the agreed value of trade in the period from 1976 to 1980. This kind of increase in the amount of goods crossing the border between Yugoslavia and Albania in both directions was influenced to the greatest degree by a 1979 decision of the Federal Executive Council which accorded Albania favored treatment in our foreign trade and foreign exchange system.

This stimulated the motivation of our economic organizations to export to the Albanian market and made it possible to import more goods therefrom. Yugoslavia thus demonstrated once again its generosity and goodwill in improving cooperation with its southern neighbor in spite of the unenviable political relations because of the well-known positions which have been taken by the Albanian leadership and because of its inclinations.

$720 Million in This 5-Year Period

A growth of visible trade to $135 million in both directions is planned for this year. That value on deliveries makes Yugoslavia Albania's leading trading partner. Albania's trade with the world amounts to about $600 million annually, in which the value of mutual deliveries with Yugoslavia has a share of over 20 percent.

The first long-term agreement on visible trade was concluded with Albania for the period from 1971 to 1975. It was realized in the value of $111.7 million in both directions. The next agreement, covering the period from 1976 to 1980, called for joint deliveries of $172 million, which represented a 50-percent larger volume of trade than that achieved in the previous medium-term period. Balanced deliveries of $86 million in each direction were planned. Nevertheless, the plan was considerably exceeded: trade reached $254 million between 1976 and 1980.

Last year had a particular impact on this volume of trade. Mutual deliveries were planned at $78.6 million for the year, but trade exceeded $150 million. For the current 5-year period, from 1981 to 1985, a further growth of visible trade between Yugoslavia and Albania has been envisaged. The agreement called for a total of $720 million in both directions, nearly threefold the figure for the previous medium-term period.

As far as Yugoslav exports are concerned, the backbone of trade up to 1985, as indeed in previous years, would be made up of iron for reinforced concrete, railroad rails, steel and cast iron pipe, wire, refractory bricks, ball bearings, refrigerators, TV sets, miscellaneous machines and equipment, measuring instruments, laboratory equipment, certain chemical products, cotton, textile fibers, explosives, edible oil, consumer goods and other products. The deliveries planned from Albania are chromium ore and chromium concentrate, electric power, asphalt, gasoline, gas oil, cognac, tobacco, textiles and textile products, certain chemical raw materials, souvenirs and other items. It is worth emphasizing that balanced deliveries have been planned, as indeed is the practice in agreements on visible trade with the People's Socialist Republic of Albania.

Growth of Exports and Imports

The figures for the first 4 months of this year show that trade between Yugoslavia and Albania is continuing to grow. The total for this period was $44.4 million. Yugoslav exports increased 24.4 percent over the same period of last year and reached a volume of $16.3 million, but imports grew 71.3 percent and amounted to $28.1 million. This gap was affected above all by the larger purchases of electric power from Albania. The next reason was the lag of Yugoslav exports because of the shortage of certain types of goods such as cotton and edible oil or because certain organizations which depend on imported parts and components from western countries were unable to carry out agreements with Albanian firms on time.

Attention in the coming period will therefore be focused on augmenting exports to Albania so as to offset the imbalance between exports and imports from that country. About 130 economic organizations which are members of the section for Albania of the Economic Chamber of Yugoslavia agreed at a recent meeting of the section to make a more detailed analysis of trade to date and to organize several meetings of producers and exporters in order to examine possibilities for increasing exports to this neighboring country.

7045
CSO: 2800/289

BRIEFS

YUGOSLAV-ALBANIAN TRADE--From January to the end of May this year Yugoslavia and Albania achieved almost 40 percent ($52.7 million) of the trade planned for this year; Yugoslavia exported $22.6 million worth of goods and Albania, $30.1 million. The deficit on the Yugoslav side is a result of the large amount of electirc power imported and reduced Yugoslav exports of ferrous and non-ferrous metallurgical products and some agricultural and food products. In addition to the items on the commodity lists drawn up in 1980, this year Yugoslavia will import chromium ore and will export edible oils and steel pipe, among other things. The trade protocol for this year calls for $135 million or $67.5 million in each direction. Thus, Albania would account for 1.17 percent of total Yugoslav trade with socialist countries. On the basis of deliveries and contracts for new business concluded between the two countries up to now, trade could exceed $100 million. In 1980 the volume of deliveries was valued at $115.4 million. [Text] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 14 Jul 81 p 1]

YUGOSLAV-BULGARIAN TRADE--In the first 5 months of this year Yugoslavia and Bulgaria achieved a commodity trade valued at $115 million, with Yugoslavia exporting about $40 million and importing $75 million. This is the result of unplanned Yugoslav imports of raw materials and food, and more favorable conditions for importing some goods, largely raw materials and producer goods. It is estimated that by the end of the year exports could be very much lower than imports. The value of trade planned for 1981 is $504 million (Yugoslav exports $251 million and imports $253 million). Judging from the volume and contracts concluded thus far, total trade is expected to be about $460 million (about $200 million in Yugoslav exports and about $260 million in Yugoslav imports). [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 14 Jul 81 p 1]

YUGOSLAV-CZECHOSLOVAK TRADE--In the first 5 months of this year Yugoslavia achieved a trade value of $442 million with Czechoslovakia, its second largest trade partner among the socialist countries. Yugoslavia exported $189 million and imported $253 million worth of goods. Trade was characterizied by slower development of business contracts. Yugoslavia is lagging in nonferrous metallurgical product exports, resulting in reduced Czech deliveries of the planned amounts of ferrous metallurgical products; there has also been a decrease in imports of machines and equipment. Nevertheless, it is optimistically estimated that trade could total about $1.4 million [presumably, billion] by the end of the year, or about $700 million in each direction. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 14 Jul 81 p 1]

YUGOSLAV TRADE WITH USSR, MONGOLIA--This year trade with the USSR is expected to be larger than planned. In the first 5 months of this year mutual deliveries totaled $2.55 billion, with Yugoslav exports amounting to over $1.36 billion and Yugoslav imports nearly $1.19 billion. The planned trade volume for this year is valued at over $5.75 billion, with Yugoslav exports planned at about $2.9 billion and imports at $2.83 billion. It is possible, however, that the total volume will be $6 billion (exports amounting to $3.15 billion and imports $2.85 billion). These estimates are based on conclusions reached at the recent meeting of the Yugoslav-USSR Joint Committee for Economic Cooperation where Yugoslav participation in building a number of projects in the USSR was agreed on. Trade with Mongolia in the first 5 months was on the planned level, amounting to $1.3 million (Yugoslav exports were $600,000 and imports $700,000). Total trade this year is planned at $3.1 million, but it is estimated that it could reach $3.9 million, with Yugoslav exports amounting to $2 million and imports to $1.9 million. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16 Jul 81 p 1]

REDUCED YUGOSLAV-HUNGARIAN TRADE--In the first 5 months of this year Yugoslavia and Hungary achieved a trade volume of $216 million. Yugoslav exports amounting to $88 million were considerably less than imports which amounted to $128 million. This was the result of unplanned imports of fertilizer, edible oils, meat, petroluem derivatives, and other products. Total planned trade for 1981 is $771 million ($385 million in Yugoslav exports and $386 million in imports), but it is expected to total about $500 million by the end of the year ($230 million in Yugoslav exports and $260 million in imports). [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16 Jul 81 p 1]

CSO: 2800

CZECHOSLOVAKIA

ROLE OF NONFERROUS METALS IN NATION'S LONG-TERM OUTLOOK

Prague PLANOVANE HOSPODARSTVI No 5, 1981 in Czech pp 68-76

[Article by Engineer Jaromir Lichnovsky, State Planning Commission: "Role of Non-Ferrous Metals in Czechoslovak Economy in Long-Term Outlook"]

[Text] Due to their specific applications in selected fields of mechanical, electrotechnical and space engineering and other sectors where, for the time being, they are irreplaceable and indispensable, nonferrous metals occupy one of the key positions in world economy. Their importance has also been accentuated over the past several years by their price increases on the world market, even though in many cases they involve speculative phenomena. It appears that in the 1980's nonferrous metals could constitute shortage materials in the scantest supply in the world's policy for management of raw material resource.

Development of production in general and consumption of metals on a worldwide scale in particular are reflected also by the development of the world's economy. In addition to steel, such an indicator is provided also by nonferrous metals.

Worldwide Production of Key Nonferrous Metals (in thousands of metric tons)

Item	1950	1960	1970	1974	1978
Aluminum	1,507	4,543	10,257	13,911	14,532
Copper	3,187	4,998	7,578	8,852	9,114
Lead	1,850	2,717	4,006	4,225	4,753
Zinc	2,060	3,151	5,229	6,001	4,287[1]
Tin	187	195	220	220	193[1]
Nickel	148	326	607	709	612

1. Not including the USSR and other socialist countries

Worldwide Consumption of Key Nonferrous Metals (in thousands of metric tons)

Item	1965	1970	1974	1978
Aluminum	8,364	12,570	16,910	14,707[2]
Copper	6,193	7,283	8,325	9,422
Lead	3,182	3,907	4,350	5,465
Zinc	4,096	5,063	5,963	4,378[1]
Tin	210	226	241	186[1]
Nickel	431	577	702	711

1 Not including the USSR and other socialist countries.
2 Primary aluminum only in 1978.

Significant Consumers of Nonferrous Metals in 1978 (in thousands of metric tons)

Country	Al	Pb	Cu	Zn	Sn	Ni
USA	4894.0	1270.0	2181.1	1023.0	47.0	173.5
Japan	1035.9	270.0	1241.4	733.0	29.5	99.0
FRG	952.3	275.0	800.0	351.0	13.5	67.4
France	532.7	192.0	310.0	281.0	10.3	36.0
Great Britian	402.2	242.0	501.6	248.0	12.2	32.0
USSR[3]	1760.0	620.0	1300.0	.	.	127.0
PRC[3]	370.0	200.0	.	.	.	.

3 Data for USSR and PRC are statistical estimates

The period between 1974, in which extant production and consumption of nonferrous metals culminated, and 1978 was marked in the five listed capitalist countries by a decrease or stagnation in consumption of key nonferrous metals in kilograms per inhabitant:

Country	Year	Al	Pb	Cu	Zn	Sn	Ni
USA	1974	24.1	4.9	9.2	5.5	0.3	0.9
	1978	22.4	5.8	10.0	4.7	0.2	0.8
Japan	1974	11.7	2.0	7.6	6.2	0.3	1.0
	1978	14.2	2.3	10.8	6.4	0.3	0.9
FRG	1974	14.1	4.3	11.8	6.3	0.3	1.0
	1978	15.5	4.5	13.0	5.7	0.2	1.1
France	1974	9.1	3.8	7.9	5.8	0.2	0.8
	1978	10.0	3.6	5.8	5.3	0.2	0.7
Gr. Britain	1974	8.8	4.8	8.9	4.8	0.3	0.5
	1978	7.2	4.3	9.0	4.4	0.2	0.6
CSSR	1980	13.6	4.0	7.0	4.6	0.3	0.8

(The source for all data regarding production and consumption were METALLSTATISTIK 1964-1974 and METAL BULLETIN HANDBOOK 1979.)

International comparison shows that /consumption of basic nonferrous metals in kilograms per inhabitant in the CSSR is immediately below the level of advanced capitalist countries. It is a residual consequence of concentrated efforts to achieve savings in nonferrous metals and their substitutions which had to be resorted to during the period of industrialization with limited availability of sources of nonferrous metals/ [passage enclosed in slantlines printed in boldface]. However, there are certain limits which cannot be exceeded by this trend as it would result in detrimentally affecting the technical level of production in mechanical and electrotechnical engineering as well as operational reliability of produced systems. Nevertheless, economy in nonferrous metal management will require utmost attention even in the coming years.

To illustrate a point we present the demands posed by Gross National Product on certain types of metals expressed in U.S. dollars. The following table compares advanced industrial countries with the CSSR. The comparison is for the year 1976 (GNP in prices current in 1976). Demand listed in metric tons per 1 million U.S. dollars of GNP.

Metal	USA	Japan	FRG	Great Britain	France	CSSR
Aluminum	2.65	2.81	2.07	1.91	1.39	3.54
Copper	1.07	1.83	1.61	1.96	1.03	1.68
Lead	0.75	0.40	0.52	1.05	0.58	1.06
Zinc	0.65	1.21	0.72	1.03	0.74	1.50
Nickel	0.09	0.21	0.12	0.10	0.10	0.19
Tin	0.03	0.06	0.03	0.06	0.03	0.08
Selected Nonferrous metals total	5.24	6.52	5.07	6.11	3.87	8.05
Level of consumption in % of CSSR	65	81	63	76	48	100

Source: Atlas of the World Bank for 1978 (gross national product for 1976); World Bureau of Metal Statistics (nonferrous metal consumption).

The comparison shows clearly that the CSSR still has some unused potential in consumption of nonferrous metals. Research has shown that decreases in the consumption of metals, and thus also their savings, accrue primarily to the influence of designers, amounting to 70 percent, and technologists 20 percent; other influences are estimated roughly at 10 percent.

Systematic implementation of the resolution of the presidium of CPCZ Central Committee and CSSR government for improving the planned management system of the national economy as well as completion and adoption of the set of measures in preparation represents also an important approach to lowering the demands of our economy on metals.

The developed Czechoslovak industry poses a considerable demand on nonferrous metals. This demand accrues primarily to growth of production in mechanical engineering, electronics, power engineering, transportation and construction which absorb roughly 90 percent of all demand for basic nonferrous metals. Thus, in mechanical engineering alone the share of nonferrous metals in total expenditures for metals is approximately 30 percent. An analysis of the development of prior and prospective demand, based primarily on development of mechanical engineering, indicates the following potential growth (in percent):

Metal	1975-1980	1980-2000
Aluminum	2.4	1.7
Copper	2.7	1.9
Lead	2.1	1.7
Zinc	-1.2	1.2
Tin	-0.4	1.0
Nickel	3.6	3.0

The above computation is based on the orientational growth of national income at 2.8 to 3.5 percent and that of the sector of mechanical engineering at a rate of 5.5-6.5 percent and taking into consideration presumed disposable sources of nonferrous metals.

Each metal has its own specific properties and sphere of application, as can be seen from this orientational structure of demand for nonferrous metals in the CSSR (share of sector in overall demand in percent):

ALUMINUM		TIN	
Transportation systems	26%	Tin-coated sheet metals	33%
Electronics	21%	Solders	27%
Mechanical engineering	16%		
COPPER		NICKEL	
Cables and conductors	50%	Steel production	73%
LEAD		ZINC	
Cables and conductors	30%	Zinc-coating	40%
Storage batteries	15%	Zinc white	21%

The structure of their consumption kept gradually changing in the course of the Sixth Five-Year Plan, and in the Seventh Five-Year Plan and in a long-term outlook it will be made more specific with regards to the development of individual branches of mechanical engineering and taking into consideration structural changes in the national economy. Even though consumption of nonferrous metals per Kcs 1 billion of growth of national income showed a slight decrease in 1976-1980, all its aspects will have to be analyzed in an effort to effect further decreases in demand for materials and, thus, savings in foreign exchange for their imports.

Increase in the price of metals on world markets over the past several years once again provided an impetus for working out considerations for utilizing domestic nonferrous metals ore resources in compliance with the directives of the 16th CPCZ Congress.

In keeping with CSSR government resolution No. 128/79 measures were taken, among others, to devise a prognosis of exploitable mineral raw material sources in the CSSR in which an important position is occupied by nonferrous metal ores. There are signs of potential increases in domestic extraction to cover the demand. However, this involves a very demanding program in the terms of investments, personnel, geological survey capacity, machinery, etc. The prerequisite is channeling the development of ore mining toward a more effective and complex utilization of our domestic ore reserves.

Assuming that the requisite means will be provided for geological survey, research, technology and capital investment, coverage of demand by domestic extraction can be seen in the following (in percent):

Metal	1990	2000
Copper in concentrate	5	14
Lead in Concentrate	8	21
Zinc in concentrate	18	26-48
Tin in concentrate	16	50 100

Underestimated numbers of raw materials are sources of secondary nonferrous metals. Their collection and processing are cheaper by several multiples than is domestic ore mining or their importation. In the CSSR the share of secondary raw materials amounts to approximately 30 percent of overall consumption of nonferrous metals, in the USSR it is more than 30 percent and in advanced capitalist countries it is 40-50 percent. The current volume of nonferrous metal collection in the CSSR is approximately 140,000 metric tons a year with an overall value of roughly Kcs 4 billion freight and all charges paid (assuming their procurement in nonsocialist countries).

Party and governmental organs are dealing with the problem of raw materials management. This is also reflected in the CSSR government resolution No. 282/80 which critically assesses the situation in the sector of secondary sources of metals and points out approaches and solutions to a more intensive collection and processing of ferrous and nonferrous metal scrap for the years 1981-1990.

Due to its high value, nonferrous metal scrap constitutes a significant resource for our economic development. Nevertheless, the situation is highly unsatisfactory in comparison with advanced countries. With an eye to the long-term outlook, the share of secondary sources of nonferrous metals should keep increasing in direct proportion to the growth of their consumption in the national economy. Elimination of this adverse situation in the collection of nonferrous metals calls for creating the prerequisite for completion of facilities of organizations charged with collection and providing economic stimuli for both collection organizations as well as for locations where nonferrous metal scrap is found, designed to improve recovery and yield of metals at all levels. Unused nonferrous metal scrap represents values amounting to hundreds of millions and, what is more, adversely affects steel production by debasing the properties and, thus, also the utility value of steel. The shortcoming is to be seen in the fact that there were no provisions for centralized accounting for nonferrous metal scrap. This has been put into practice only as of this year.

Scrap metal is currently acquiring increasing importance, particularly in relation to the worldwide energy crises. Nonferrous metal scrap represents for the Czechoslovak national economy the cheapest raw material compared to other methods of procurement (through imports or mining). What is more, it also represents embodied energy consumed in its production and accumulated and preserved in the scrap.

Turning out products from ores requires more primary energy than processing of nonferrous metal scrap, as shown in the following chart.

Metal	Consumption of primary energy for processing in kWh/t		Savings in processing scrap	
	from ores	from scrap	kWh/t	Percentate share
Aluminum	65,000	2,000	63,000	97
Copper	13,500	1,700	11,800	87
Zinc	10,000	500	9,500	95
Lead	9,500	500	9,000	95
Magnesium	90,800	1,900	88,900	98
Titanium	126,100	52,400	73,700	58

The chart makes it clear that production, processing and consumer scrap is a very important factor for maintaining the production on nonferrous metals and their alloys, and represents a particularly significant factor in the production of metals in countries with limited ore resources.

As shown by the following computation of metal reserves with regard to nonferrous metals and their long-term outlook, the CSSR has ample potential for substantially increasing their incidence:

Quantity	1965	1970	1975	1980	1985	1990	2000
Millions of metric tons	2.03	2.89	3.82	4.46	5.41	6.45	7.90

The CSSR annually consumes more than 460,000 metric tons of nonferrous metals. It is estimated on the basis of available findings that approximately 40 percent go into metallic assets (machinery, installations, products from nonferrous metals, etc.) and the remainder represents the balance of direct or indirect exports, various types of losses, inadequate collection, etc. The entire set of problems relevant to the flow of individual nonferrous metal in the Czechoslovak national economy will have to be thoroughly analyzed by also making use of findings made in similar studies in the formation of metallic assets from ferrous metals. This also provides the basic for assessment of the potential share of scrap in overall demand which, in comparison to industrially advanced countries, straddles the lower limit of our potential.

Orientational Coverage of Czechoslovak Demand From Recycling on the Basis of Current Trends (in percent)

Metal	1980	1985	1990	2000
Copper	15	13	15	13
Lead	32	35	39	41
Zinc	2	2	6	10
Tin	3	3	4	6

A considerable part of scrap from aluminum, copper, lead, zinc and tin, however, does not pass through the refining process and is processed directly into castings and alloys. In the future emphasis must be made primarily on acquisition of all sources of nonferrous metals to warrant their economic use to the greatest possible extent throughout the recycling process.

Increase of secondary sources for the production of nonferrous metals can be enhanced primarily by increase of depreciated scrap, i.e., accelerated liquidation of obsolete long-term production machinery assets, an accelerated turnover in the metallic assets. In the CSSR this amounted to 26 years in 1980, while in other industrially advanced countries it was 12-18 years. Accelerated turnover is the greatest potential source for growth of metal scrap in the CSSR, while this process is also socially desirable from the viewpoint of modernization of the national economy.

The significance of nonferrous metal scrap for the national economy can be gleaned from a comparison of costs for production of metals from ores and scrap. Production of 1 metric ton of copper ore containing, e.g., 0.6 percent copper, calls for over 200 metric tons of raw materials, a ton of tin 300-400 tons of nickel approximately 200 tons. Their production from nonferrous metal scrap calls for processing costs of only 10-15 percent. Production of nonferrous metals from ores calls for construction of very expensive installations as well as hard labor in mining and metallurgy preceded by demanding geological surveys and prospecting. /Production of a ton of copper from ore in the CSSR, e.g., is approximately 56 times more costly than its production from scrap.

It is estimated that investments for the construction of facilities for processing of scrap amount to only 15-25 percent of expenditures required to construct capacities for processing of ores or concentrates.

To reach the level of advanced industrial countries, the CSSR should gradually attain a share of recycling the overall demand for copper of over 50 percent, lead 50-60 percent, zinc 26-39 percent, tin 15 percent and aluminum 40-50 percent.

Approximately 70 percent of nickel is consumed in the production of high-grade steels and its recovery through steel scrap is fairly satisfactory. However, even here there still are considerable unused resources which would make it possible to reduce the demand for primary nickel and other alloying additives.

On the basis of these findings production on nonferrous metals must be oriented toward improving its industrial base and making better use of technoscientific findings.

In the area of technical development it is envisioned to:
Gradually implement advanced technological processes and mechanisms for extraction and processing of ores;
Investigate the potential for production of nonferrous metals from domestic raw material resources by utilization of suitable pyrometallurgical and hydrometallurgical processes or their combination;
Introduce new technological processes and equipment;
Introduce new products in the sphere of powder metallurgy; assign high priority to this sector as it represents the most promising trend in metallurgical production.

With regard to consumption, the task will be to improve utilization of metals by consumers as well as throughout the metallurgical cycle. And as regards secondary sources, recycling of all nonferrous metals will have to be stepped up in order to reduce the demand on foreign currency for their importation.

Contemplation of continued importation of nonferrous metals after 1980 appears to be very complex, for several reasons:
The domestic raw-material base of nonferrous metallurgy is not large and, in spite of taking into consideration all intensification factors in extraction and collection of nonferrous metals, all increments for covering the demand after 1980 will have to come from imports;
Known deposits are becoming increasingly exhausted due to the relatively high rate of consumption worldwide;
Worldwide extraction yields poorer grade ores and resorts to mining of less accessible ores;

There is a constant deterioration in economic conditions with regard to credit availability, procurement, etc.

Current considerations focus on the necessity for acquisition of additional sources of nonferrous metasl by effective development of the domestic base of raw materials and continuation of existing cooperation with developing countries. Orientation toward developing countries is necessitated by the fact that in the case of six key nonferrous metals (copper, lead, zinc, aluminum, tin and nickel) the world's ore reserves are distributed as follows: Europe 2.3 percent, Asia 4.7 percent, America 33.4 percent, Africa 26.8 percent, Australia and Oceania 32.8 percent.

In the past several years there appeared another new source. In connection with the "raw material crisis" efforts have been stepped up toward exploitation of new raw material sources, such as are polymetallic ores found on the bottom of seas and oceans that contain more than a dozen of precious metals. Due to their high content of manganese and iron, the submarine polymetallic ore formations are called ferro-manganese or simply manganese concretions that cover approximately 15 percent of sea and ocean bottom. Extraction is envisioned from depths of 4,000 to 6,000 meters.

The key sources which supply manganese and other metals into oceans are river streams, volcanic eruptions at sea bottom and submarine deposits. Scientists hold that concretions are formed and enlarged by separation of chemical elements from sea water. Moreover, their remarkable characteristic is that their reserves at sea bottom increase at a rate of 16 million metric tons a year. From the economical viewpoint, of key interest are primarily nickel, copper, cobalt and manganese. The average distribution is 27-30 percent manganese, 1.1-1.4 percent nickel, 1.0-1.3 percent copper and 0.2-0.4 percent cobalt. There are considerable differences in the estimates of available reserves of concretions and they range from 500 to 1,500 billion tons which for industrial utilization of three key metals (without manganese) represents 12-35 billion tons of metals. In comparison with the level of annual worldwide consumption of metals in 1974 amounting to approximately 20 million tons and the level of reserves on land amounting to approximately 1.1 billion tons (including manganese) it represents a significant source of metallic substances. To make matters worse, predictions regarding deposits on dry land and their exploitation indicate that the reserves of some important metals could be exhausted by as early as the end of this century. Industrial exploitation of the sea bed could be instrumental in postponing those predictions considerably beyond the year 2000. The potential for utilization of manganese nodules from the seas has been a matter of common knowledge for over 100 years, but their industrial exploitation lies primarily in the economic sphere, in development of technological means and cost-effective methods of extraction. This topic is currently the subject of complex discussions in the UN in connection with negotiations relative to the Law of the Sea. There are already indications that extraction of metals from nodules will be economically very attractive, as it holds the promise of high profits. For that reason some large industrial concerns in the United States, Japan, West Germany, France and other capitalist countries started organizing efforts at surveying, mining and processing of nodules in the form of experimental pilot installations and prospecting for the most promising submarine deposits.

According to selected UN documents, the level of production of metals from nodules in 1990 and their role in meeting worldwide demand is estimated to be along the following lines:

Metal	Metal contents per weight unit of nodules (%)	Estimated level of metal extraction from nodules (1000t)	Prognosis of world demand (1,000t)	Share in covering world demand (%)
Manganese	24.00	3,645	20,127	18.0
Nickel	1.60	176	1,153	15.0
Copper	1.40	149	15,292	1.0
Cobalt	0.21	21	72	29.0

At a 94-percent yield of metal from dry manganese nodules, 1 million tons of raw material yields 230,000 t of Mn; 15,000 t of Ni; 13,000 to of Cu; 2,000 t of Co. Current value of the key metals (Mn, Ni, Cu, Co) in 1 million tons of dry manganese nodules is approximately Kcs 5 billion freight and all expenses paid.

Within the framework of CEMA member countries and adopted long-term targeted programs of cooperation under the leadership of the USSR and with CSSR participation preparatory efforts are also being organized for an extensive program for exploitation of the sea bottom, which would substantially influence our situation in procurement of the above-mentioned raw materials after the year 1990.

Determination of the optimum manner of providing for meeting the long-term demand for basic metals and raw materials for their production is a complex matter, particularly in view of the increasingly demanding economic conditions, technological solutions and demand for means that must be expended in advance for acquisition of permanent sources. It turns out that dealing with the above problems will call for varying approaches requiring demanding computations in the field of national economy as they involve complex intersectoral relations with a considerable economic consequences.

The ever deepening raw material crisis shows that raw-material economy is the order of the day. In addition to concentrating on conservation of fuels and energy, prudent but decisive efforts must be developed toward conservation in metals consumption. This is dictated by technoscientific progress as well as by the limited possibilities and conditions for their acquisition, particularly that of nonferrous metals.

From 1972 to 1980 prices of raw materials increased by 350 percent, from which, e.g., copper 2.4 times, lead 4.2 times, zinc 2.2 times and tin 5.3 times. On the other hand, we obtained only double the original price for machinery. This puts the CSSR, as a country with advanced mechanical engineering production, into an adverse situation. It is therefore economically imperative that the weight and volume of machinery be decreased while improving their utilitarian value.

Nonferrous metals constitute for us a very sensitive raw material, as we keep importing them at a constantly increasing rate from free currency countries. All countries dependent on their importation are introducing strict measures for their management and are looking for suitable substitute materials. Metals are even becoming one of the barriers to the development of Czechoslovak economy. This calls for adopting measures that would facilitate relative savings of approximately 5 percent of nonferrous metals a year. Better management is indispensable in the case of aluminum and other metals, particularly precious metals, the prices of which keep constantly increasing and are a sensitive indicator of political developments in the world. Currently under study is regulation of price relations between nonferrous metals and other materials and an increase in the procurement price for metal scrap.

A reaction to all these changed and complex interior and exterior economic conditions can be detected also in the state goal-oriented program for more efficient consumption of metals (CSSR government resolution no. 347 from 6 November 1980 with an appendix regarding targeted objectives in savings of ferrous and nonferrous metals by individual branches of the economy in the Seventh Five-Year Plan). The program is based on 139 specific actions and an additional 35 intentions which require further elaboration or specification. Its principal guarantor is the Federal Ministry of Metallurgy and Heavy Machine-Building Industry with participation by many other branches and departments. The mentioned program:

Defines key problems and basic objectives for an improved utilization of metallic materials in the Czechoslovak economy and reduction of their losses. In its concept and orientation it affects practically all the decisive spheres and areas of potential streamling activities in economic management of metals,

Represents one of the basic and introductory documents to the programs of the Seventh Five-Year Plan (savings are listed separately for the year 1981 and for the entire period 1981-1985;

Outlines the key problems and basic objectives for an improved utilization of metallic materials and reduction of their losses and in this context specifies for the individual branches and organs, the relative savings in metallic materials to be achieved in the course of the Seventh Five-Year Plan (for the machine-building sectors 4-5 percent savings of metals annually);

Outlines specific actions or measures the implementation which will become an integral part in the framework of the state goal-oriented program for improved efficiency in metal consumption;

Has direct linkage to the development of the normative base and envisions implementation and constant updating of a system of technoeconomic norms and indices of metal consumption and their systematic application in the planning process;

Is an open program in the sense that it also lists specific actions and intents not provided for by the plan as yet. It does not exclude the possibility for incorporation of additional specific actions;

Anticipates a qualitatively higher and more involved level of dealing with a number of technical, organizational and economic problems of an inter-departmental character along the entire axis research--development--production--utilization;

Calls for wide involvement and stepped up activity by all central organs as well as all personnel engaged in the sector of metallic material management;

Expects systematic control of implementation of overall proposed intents and specific actions.

International findings indicate that streamlining of metal consumption is a highly topical effort particularly at present because of its considerable contributions to the national economy.

Never in the past did the problems of raw-materials management loom before us with such urgency and acuity as at the present time. And the same applies to the long-term outlook. The entire world must be prepared to face this reality. And to the

CSSR, as a country with a limited raw material base and transitional type of economy, it applies twice as much.

The state goal-oriented program for streamlining the consumption of fuels and energy together with the program for streamlining the consumption of metals are justly coming to the forefront in the economic policy of the CSSR and form the focus of interest of party and economic organs as was documented by the proceedings of the 16th CPCZ Congress.

8204
CSO: 2400/227

CROP, WEATHER REPORT PUBLISHED FOR MAY 1981

East Berlin FELDWIRTSCHAFT in German Vol 22 No 7, Jul 81 p 320

[Article by Dr D. Krumbiegel, GDR Meteorological Service, Central Weather Bureau, Potsdam]

[Text] The Weather Picture in May 1981

It was cold in the first 5-day period but thereafter air temperatures were above normal up to the start of the third 10-day period. Subsequently they dropped to slightly below normal. Rain was slight in the first half of the month but abundant in the second. Initially daytime average air temperatures dropped below normal values by from 3 to 6 K. The largest temperature anomalies came in the warm weather period from the 9th to the 14th, with between +6 and +9 K, and around the 20th, with between +4 and +7 K. By the end of the month, daytime averages rose to above normal once again. Starting on the 14th, the northern part of the GDR most of the time had more favorable temperatures than the southern. Daytime maxima first were somewhat below or around 10°C. The warm weather period brought in maxima between 20 and 25, the warmest days around 25°C (locally, up to 28°C). Starting on the 23rd, maxima seldom climbed to 20°C, for some days they came to around 15°C in the south. On the 31st, maxima once again rose to around 25°C. Up to the 6th there were still light ground frosts at night. Minima in the plains ranged between -1 and -3°C, locally around -4°C. Subsequently there were no longer any late frosts. Starting with the end of the first 10-day period, air temperatures on the ground ranged mostly around 10°C. There was much sunshine between the middle of the first and the start of the third 10-day period. Then sunshine diminished, mainly in the southern part. Duration of sunshine was generally above normal.

On the 1st and 2nd rain volumes below 5 mm were recorded widespread. Then, until the 12th, there was but little rain. Thereafter, starting in the south, showers increased. From 5 to 15 mm were recorded locally. Rain at that magnitude was widespread on the 17th (locally, up to 25 mm). There were 3 dry days around the 20th, and then, starting on the 22nd, we had frequent, partly abundant, rain. The following totals are noteworthy: 22nd, Zinnwald 87 mm, Collmberg 40 mm, Karl-Marx-Stadt 30 mm; 24th, 5 to 15 mm widespread; 26th, 5 to 10 mm in the southern part; 27th, regionally 20 to 40 mm.

Daily relative air humidity from the 8th to the 16th and from the 19th to the 22nd was mostly below 70, locally, for a few days, around 50, and otherwise mostly between 70 and 80%.

Temperature Data for May 1981 according to the Main Climatological Office, Potsdam

1. Monthly Average Air Temperatures and Deviations from Normal Values

Schwerin	14.4°C	+1.8K	Erfurt	13.0°C	+0.6K
Neubrandenburg	14.1°C	+2.5K	Leipzig	14.0°C	+1.1K
Potsdam	14.8°C	+1.4K	Goerlitz	13.8°C	+1.3K

2. Average Precipitation according to Bezirks

Rostock	66 mm = 147%	Halle	45 mm = 88%
Schwerin	84 mm = 179%	Erfurt	80 mm = 136%
Neubrandenburg	53 mm = 113%	Gera	77 mm = 122%
Potsdam	41 mm = 91%	Suhl	82 mm = 128%
Frankfurt	47 mm = 102%	Dresden	71 mm = 108%
Cottbus	54 mm = 108%	Leipzig	42 mm = 76%
Magdeburg	55 mm = 117%	Karl-Marx-Stadt	76 mm = 100%

3. Evaporation Potential

Northern bezirks	75...85 mm
Central bezirks	75...85 mm
Southern bezirks	65...75 mm

Soil, Crop and Labor

On the 5th, surface soil temperatures rose rapidly and crossed the 10°C threshold on the 7th for good. In the second and third 10-day periods they usually ranged between 15 and 20°C. There were a few days in the last third of the month when in the southern bezirks they slightly fell below the 15°C threshold. The subsoil warmed up rapidly up to midmonth and thereafter showed but relatively slight temperature fluctuations. By the end of the month, from 14 to 16°C were recorded at a 50-cm depth, from 12 to 14°C, at a 100-cm depth. The ground water level sank much in the first half of the month. Except for the southern bezirks and Halle Bezirk, at a depth of 50 cm below the turf, values between 25 and 50% of natural field capacity were reached. The ground water level started rising at midmonth in the southern bezirks and in other areas too in the course of the third 10-day period, thanks to the rains. The driest bezirks were those of Neubrandenburg, Potsdam, Frankfurt and Cottbus. Hardening increasingly encumbered since midmonth the working of the more cohesive soils. Lighter soils showed dust formation and, in part, wind erosion. Ground working became generally better when more rain began to fall. In the southern bezirks, however, there were areas in the third 10-day period that became so wet that ground working was complicated and the trafficability on the acreages was significantly reduced.

Soil climatic processes first were hampered by low temperatures and later by lack of ground water. In the course of the third 10-day period, soil climatic conditions improved.

Vegetation was set back considerably early in the month due to low air temperatures and late frosts. When it got warmer, vegetation was greatly stimulated. But mainly in the northern and central plains ground water was insufficient. That was detrimental to forage crops, the size of the winter crop and to the beets, the seed vegetable and the catch corn crop. Cultures with high heat demands met with very favorable conditions since the end of the first 10-day period, provided there was enough ground water. Especially the potatoes came up fast and evenly and encountered good preconditions for their early growth. In the third 10-day period the weather was perfect for growth, from which all cultures, including the weeds, profited. Weather-conditioned damage to crops ensued at midmonth, mainly in the southern bezirks, due to heavy rains (compacting of winter rye, hail damage, erosion). Insect pests encountered virtually ideal conditions during the first two 10-day periods, the Tortrix moths being most in evidence. Phenological development had in most cases a 5-day head start, which had increased to from 7 to 12 days by the end of the month. The various phenological phases were passed through extremely fast, especially the blossoming phases.

Field work was hardly exposed to disturbances due to the weather until the middle of the third 10-day period. After that, especially in the southern part and in the bezirks of Schwerin and Rostock, heavy downpours temporarily interrupted cultivation, maintenance and harvesting. Potatoe digging by and large came to an end during the first 10-day period. In the internal plains, winter catch crop fruit harvest was by and large completed around the 20th, the catch crop corn cultivation, in the course of the third 10-day period. At the same time beet cultivation got started and the cutting of pasturage and perennial field forage. Mechanical weeding measures were especially effective in the first part of the month. The application of herbicides was temporarily set back by high air temperatures, a low relative air humidity and a low ground water level. Drying conditions were mostly good or even very good up to the beginning of the third 10-day period. Thereafter the conditions got much poorer for making ensilage and hay. The water budget situation for the crop and the soil was such that, starting with the end of the first 10-day period, rigorous irrigation became necessary in the northern and central plains.

Meteorological Projections for Farming in July 1981

The phenological head start and, regionally, also the ground water situation, suggest that grain will ripen before it normally does, mainly in the central and northern plains. From that, in connection with its solid stand and moderate height, one may expect the harvest to proceed rapidly and the summer catch crop cultivation to have extensive possibilities. More weeds must be expected to grow around the root crops, vegetables and corn because of the weather in May. In addition, sugar beets may set suckers.

5885
CSO: 2300/260

BRIEFS

S-BAHN STATION REPAIR--Numerous S-Bahn stations in East Berlin are soon to be repaired. Because the East Berlin railway administration is short of personnel, around 150 workers from other GDR railway administrative districts will help. The Baumschulenweg, Warschauer Strasse, Pankow, Wuhlheide, Treptower Park, and Karlshorst S-Bahn stations are to be renovated this year. The repair of a number of other stations is being prepared for the next few years. For the time being, the repair of S-Bahn stations in West Berlin that have been shut down and are threatened by ruin is not expected. Railway functionaries have implied that, first of all, negotiations with the West Berlin Senate on subsidies for the S-Bahn and its inclusion into the West Berlin commuter system must be successfully completed. [Text] [Bonn IWE-TAGESDIENST in German No 95, 1 Jul 81 p 2]

CSO: 2300/261

DEPUTY MINISTER INTERVIEWED ON DEVELOPMENT OF SERVICE INDUSTRIES

Budapest NEPSZAVA in Hungarian 27 Jun 81 p 4

[Interview with Imre Szabo deputy minister of industry, with Zsuzsa Varga: "Services and the Standard of Living"]

[Text] [Varga] Recently we had to learn to use several measuring units if we wanted to keep up with the everyday life of our national economy. We are not referring to the SI system [The International System of Units] according to which in the future--indeed, even at the present time--there is no doubt that we are obligated to measure in millibahrs instead of millimeters of mercury, and in joules instead of calories. Rather, that from now on we will have to measure the components of the standard of living in different units. In the past we used to say: tons, forints, percentages.

When the goal is to maintain the achieved standard of living, we have to see that we can measure [this] not only in additional forints. For example, services are closely related to the standard of living--and also our general welfare. This is the quality of how well our needs and desires are being fulfilled. And this quality has innumerable facets from getting the work done, to meeting the deadline, to availability.

Therefore we asked deputy industrial minister Imre Szabo with what kind of service policy the ministry was starting the Sixth Five Year Plan?

[Answer] We have a conscious service policy which is an organic part of our industrial policy. When we drafted we took it into consideration that during the 1970's, and especially during the period of the Fifth Five-Year Plan fundamental changes had taken place in the growth of services to the population. In most branches the backbone of a national service network has been developed. We witnessed noteworthy progress in technological growth, and the number of people providing services increased significantly in comparison with other branches of the national economy. At the same time the efficiency of the work done here did not improve to the desired extent. There was also no significant progress in improving customer relations, developing more flexible forms of service to better conform to the local needs, or in material and spare parts supply. Therefore in the Sixth Five-Year Plan we will have to pay more attention than before to these allergic [sic] points.

[Question] In an ever broader area of services, the price system reflecting expenses means open [free] pricing. As a result the structure of our consumption of service no doubt will also change, and restratify. In which direction?

[Answer] We must expect that as certain durable consumer goods become more and more complicated, so the need for servicing them will also increase. Let us consider, for example, the popularity color televisions and automatic washing machines will gain in the future. Services will have a large role in saving energy. Tune-ups for cars will be more frequent, as will thermal insulation for homes, and a number of new demands are expected to surface. The "do it yourself" trend will continue to grow, far exceeding the sphere of hobbies. We can expect growth primarily in housing maintenance, garment making and in minor repairs, considering that the people will also have more time for this as the five-day work week is introduced.

In dry cleaning the centrally organized plant construction now under way will be completed by the beginning of the plan period. The way for continued growth is to expand the parlor system [?] which more flexibly conforms to the population's needs. We will improve service methods, there will be more home deliveries and rental bed linens. We will expand the fast shoe repair network, and the Zalaegerszeg Garment Factory which will soon open its yard goods store, will not remain a rarity. Of the personal services, color photography and body development are growing dynamically. We assume and hope that the more difficult selling conditions will provide manufacturers with incentives to improve quality, and to improve the spare parts supply for their products.

[Question] In the last five year plan the growth rate of services exceeded [the growth of] total consumption by the population. Will this dynamism continue?

[Answer] Yes. During the last 5 years the value of services per person increased from 960 forints to 1,660 forints. According to the plan consumption will grow by 1.4 to 1.9 percent per year between 1981 and 1985; the growth rate in services may even reach twice this amount. In 5 years the number of people working in this area will increase by 10,000-15,000, in addition to increased efficienty.

[Question] How is the area of services adjusting to the changing structure and growth of demands?

[Answer] We consider the better and more complete utilization of the capacities, and increasing efficiency to be basic tasks. The private resources [of enterprises] will play a big role in making the investments. However, the need for state subsidy and for reduced-interest loans will continue to grow beyond this, and especially for initiating new organizational formats. These [loans] represent no smaller amount now than in the earlier plan periods. There is a need for broader employment of the part-time manpower--in addition to the employment relationship and retirement. This may also help drive the moonlighting activity into legal channels. Providing a service will require increasingly better trained manpower, therefore we must pay much attention to recruitment and to continued training.

[Question] Much is being said these days also about the impending modernization of the service organizations. What is the opinion of the ministry's management about this?

[Answer] The free pricing systems which develop, and decentralization of the large organizations is accompanied by the development of a competitive situation. This in itself may also force those who provide services to do better organized and more efficient work. We are now creating identical conditions for the state sector, the cooperative sector, and the private sector. For the smaller units this means being able to catch up where they lag behind others, making up their shortcomings. And competitiveness among the socialist organizations can be insured by being able to whittle down the excess costs resulting from the large apparatus, and those who actually provide the services become directly interested in it. The other day an old acquaintance of mine greeted me from behind the counter in a paint store. He is department manager in a textile factory; this is how he supplements his income. Well, the effect of the new conditions must be that if someone wants to obtain more income he [or she] should be able to do so in his [her] own field, since in this case [s]he can do work which is much more useful to society. The example is fully valid for the services also. I hope all these will significantly contribute to improving the quality of services and together with that to improving the quality of our standard of living, of general welfare"--concluded Imre Szabo.

8584
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GOVERNMENT ENDORSES PRIVATE SECTOR

Budapest MAGYAR HIRLAP in Hungarian 21 Jun 81 p 6

[Article by Andras Banki: "In a favorable wind: Will small industry come of age?"]

[Text] I have even heard said such things as: "The private sector is a stepchild of Socialism." Even if this is historically not the most precise formulation, it still brings out in an approximate way the peculiar social situation of the private sector. Approximate, because economic policy has at various times and under various regimes related to the private sector in varying ways--because of political and ideological pressure. The reins have been held sometimes tighter and sometimes looser, sometimes threatening with a death sentence and sometimes offering [new] prospects. (I note only parenthetically that public perception and judgement have by no means been able to follow these changes "flexibly," so that considerable chaos is present in people's minds; the private sector--as opposed to the "state"--means reliability, precision, invention, expertise, but at the opposite pole the private sector is a remnant of capitalism, sucking the blood of the workers, stealing and cheating, lying and extorting.)

Nowadays it would seem that the private sector has a favorable wind in its sails, which even if it doesn't fill the sails completely, at least sets the ship in motion. The question is, of course: How far can the ship sail? So far, we can at least record the fact that economic policy tolerates this wind direction, and the numbers in the private sector are increasing.

Organization and incentive

The KTV (Small-Industry Production Enterprise) maintains business connections with some 850 state enterprises and cooperatives and between 2500 and 3000 artisan shops. I would say that it is an intermediary between the socialist and private sectors, but Gyula Bogre, director of the KTV objects to this statement.

[Bogre] "Our activity cannot be restricted to just the tasks of a middleman, there is more involved than that; the focal point of our work is organization. On the one hand, we promote utilization of the mental and financial capital of small industry, and on the other hand we stimulate them to produce goods that will supplement the goods produced by large industry: goods that can be exported, that will replace imports, provide unavailable goods, improve the level of supply, and, not least, goods that can be produced more economically by small industry than by the enterprises and collectives. With this aim we make agreements, negotiate sales, and take care of supplying tools, materials, and component parts to small industries with whom we have made agreements."

[Banki] "There are many artisans who are inventors and mechanics. How are you able to help them so that their discoveries and patents can be utilized quickly and turned into products as soon as possible?

[Bogre] "So far we have been able to assist in the utilization and manufacture of inventions only if the inventor was at the same time an artisan and would undertake production of the goods. We cannot be involved with buying and selling of inventions and patents because of legal and financial reasons. Today if we wanted to buy a patent, we could only do it with funds earmarked for increasing wages, and we cannot do that. At the same time, we would need to acquire the manufacturing rights, but we have no right to do that; in other words: we are not qualified to deal in intellectual products. But we would like it if in the future we could expand our activity in this way; in any case we are preparing for this task."

[Banki] "How do you see the situation of small industry and the possibilities for artisans from your point of view as director of the KTV?"

[Bogre] "Although the comparison will not stand up to every test, I would still say that intensity and harmony in the relationship between large industry and small industry are today still far from what we have been able to achieve in agriculture by the coordination between the large operations and home production. In my opinion the capacity of small industry--without state expenditures--would be enough to triple the value of goods produced, which would have a good effect on the supply of goods, on prices, and exports, and would solve certain problems of support industries as well. The artisan workshops will produce at full capacity when conditions for work have been met and the master can work securely: can plan years ahead, can invest, and can undertake work. The forms of taxation today work against this: estimates of sales and income and supplementary taxes create an uncertain existence. This is a serious restraining force, nor was this substantially changed by the tax regulations introduced this year. There would be a need for regulations that would stimulate full mobilization of intellectual and material resources, so that the artisan could calculate in advance how much taxes he will have to pay. In fact this would be the essence of a so-called withholding tax, which has been permitted for a few artisans on an experimental basis in the national interest."

Withholding tax

One of the "exceptions" who pays a withholding tax is Gyorgy Szebenyi, a master mechanic. One would not suspect from his plant consisting of two underground levels--including an office and a warehouse--that here a product of world class, known on several continents, is being manufactured: electric pattern-cutting scissors for tailors. The story of the product is briefly this:

The Pannonia Foreign Trade Enterprise of the Csepel Works--for which Gyorgy Szebenyi also worked formerly--entrusted the construction to this master in 1970.

The prototype was ready in 6 months, and already in 1971 the Soviet Union ordered 2000 of them. Today--now with their fourth model--they are being shipped to Western Europe, North America, Brazil, and Japan. The career of the tailors' scissors is a good example of how artisans and state enterprises such as the Csepel Works, Pannonia, and KTV can achieve complete success through cooperation.

[Szebenyi] "The tailors' scissors are manufactured by a small industry with cooperation of 12 artisans and 20 employees. This year we have orders for 4000 of them, the gross value of which is more than 17 million forints. In 1978 the Ministry of Finance permitted withholding taxes for the three cooperating artisans who were bearing the greatest burdens, and this made it financially possible to continue production. We also have a progressive tax; we pay 30 percent of our income over a million forints as taxes. This involves a considerable sum, but we are working in security. Our agreement with KTV guarantees a supply of materials, marketing, and income, and we can ship with confidence. Even though inspectors visit us from time to time, we have nothing to fear.

[Banki] "Mr Szebenyi, if I may ask, how much is left over for yourself?'

[Szebenyi] Together with my wife, our income averages between 10 and 15 thousand forints a month."

KIOSZ [National Organization of Artisans] and the Skala Coop made an agreement in December of last year which gave hope to many people that something big would be forthcoming. For on the one hand there was the productive capacity of the artisans, and on the other hand there were the Skala Coop's 54 department stores and their purchasing and marketing networks. A little organization, but already unavailable goods have been provided, the selection of goods has broadened, and perhaps even the prices will be more stable, in other words: everyone is benefiting. The experiences of the past 6 months point, however, to a need for care and moderation.

Interest versus interestedness

"The hope of quick success is really in illusion; we have to work hard and we must change a lot of things in order to produce a result," says Erno Sztanity, manager of the KIOSZ-Skala Coop office. "As a first step we tried to arouse the interest of the artisans and to find out what kinds of concrete possibilities for cooperation, what capacities, and what requirements for materials could be expected. But we received very few replies to our questionnaire. Nor have our further experiences given us cause for excessive optimism. Most of the artisans have out-dated workplaces, they are not interested in full utilization of capacity, they have little working capital, they struggle with obtaining materials, they are forced to pay bribes, and they are also burdened with double taxation. Thus they have difficulty with price competition, and on the other hand there are many who are more inclined toward businesses that do not leave paperwork behind. In such circumstances we wish first of all to strengthen trust and readiness to cooperate, and even if we can't solve all the problems of the artisans, we can relieve some of them. Last spring we organized a "Who knows what" exhibition, where 300 exhibitors participated with 800 products, and the value of the orders received exceeds 5 million forints. In the third quarter we will post in each Skala department store the names of artisans supplying goods in the local area, and buyers and suppliers will be able to make contact with one another through an order book, with the department store taking care of supplying materials and component parts. Similarly, in August we will provide in each of our department stores an "artisans corner," a shop consisting of products of the masters. An urgent task, in the interest of providing for an even supply of tools, materials, and component parts, is to bring about cooperation with the TEK [Capitalist Equipment Marketing] enterprises, in which we are assisting with our warehouse capacity. One of our long-range goals in offering capital and in construction with paid workers is to look for artisans for the production of labor-intensive export goods, substitutes for imports, and supplying unavailable goods. After the first steps, we would like to strengthen the role of our office in organizing and coordinating production."

The Sixth Five-Year Plan is seriously counting on small industry, and the private sector primarily in the services [area]. It seems, however, that organizational and financial conditions require further refinement and improvement. Interest and concern have not yet arrived at a common denominator. It cannot yet be said that the approach which clearly maintains despite opposing viewpoints on income policy the primacy of production, services and supply is yet fully prevelant. Even though the coming of age of small industry is critically dependent on this.

9611
CSO: 2500/283

REACTIONS TO REFORM'S WAGE POLICY SAMPLED

Budapest MAGYAR HIRLAP in Hungarian 24 Jun 81 p 7

[Article by Gy. R.: "The Source of Wage Increases"]

[Text] "How is it that I am working just as well as before and I get a smaller raise? They say that it is because our enterprise is uneconomic....What should I do, should I go over to another enterprise?"

Perhaps we remember that the question was asked of Finance Minister Istvan Hetenyi on television by a viewer. The essence of the answer was something like this: "We hope that your enterprise will soon get out of its difficulty, because as long as it is in this kind of situation it will certainly not be able to pay much more. Unfortunately--in general--there is not yet a sufficiently close relationship between profit and wage increases, though it would be desirable if the workers were to leave uneconomic operations.

I thought of all of this when someone I was talking with gave me some very interesting data. The situation of the Csepel Iron and Metal Works was put in order financially last year by the State Planning Commission with the aid of a budget [supplement]. This meant that by the end of the year that the enterprise had produced ten times the planned profit, but without the subsidies for modernization of production it would have had a loss. In spite of this, they gave a 6.2 percent wage increase, and even carried over a significant reserve for wages into this year. (The average for the national economy in industry was about 5.5 percent.) At United Furnace the wages went up by 7.8 percent--also along with a significant reserve for wages--similarly from excess profits achieved with a state subsidy.

The Machine-Tool Industrial Works similarly became more profitable than planned, though the productivity of the workers did not improve sufficiently. Still the wages were increased by 5.3 percent. The Ganz Electric Works likewise is one of the less successful operations, and even though here the profit was not multiplied by an action from above, the final result was the same: it was able to close out a "very successful" year with subsidies, and thus there was a 9.6 percent wage increase.

More examples could be listed, but from even this much the social background and reasons for the finance minister's observation are clear.

However, the matter is by no means this simple. Nothing characterizes this better than the rebuke hidden--though not spoken--in the question of the viewer on the telephone: What can he do if the enterprise does not do well? He shouldn't be punished if he has always worked well.

A few years ago one of our trade journals had in its column a debate about this subject for several months. At that time the points of view were clearly outlined. The leaders of the enterprises wanted to loosen the relationship between results and wages. If people were to earn less at less profitable operations, it is logical that they would soon move over to the better ones. But there aren't enough jobs available to take them all in. The second principle is not to "punish" the worker for production losses, since he is least responsible for them. Just for this reason wages should be distributed centrally: In every factory workers doing the same work should be paid the same, and the quality of the operation of the enterprise should be reflected only in the income of its leaders.

The representatives of the supervising organizations, the sub-ministries, the functional ministries (finance, planning office, labor affairs) on the other hand mostly stated that profit should be reflected in wages, because how the enterprise closes out the year depends on the collective.

From these somewhat simplified opinions, the differences in attitude are illuminated. They did not succeed in arriving at a common denominator at that time, and the question is still on the agenda today. (Although the standpoints have come a little closer together.) From this, however, it cannot be expected that the problem which has lasted for ten years will be resolved between today and tomorrow. This is a long-range task, since it will be necessary to change many elements from attitude to wage-regulation in order to solve it.

9611
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HUNGARY

OFFICIAL DESIGNATES RESEARCH PROJECTS AIMED AT GREATER EFFICIENCY

Budapest MUNKAUGYI SZEMLE in Hungarian Nos 4/5 pp 16-18

[Article by Tamas Marton, deputy department head of the Ministry of Labor: "Medium-Term Plan (1981-1985) for Labor Research Projects"]

[Text] The social and economic necessity of labor research does not require particular justification. Among our social goals an outstanding place is occupied by concern for people both in the active and the nonactive stage. Accordingly, labor research extends to a large area and proliferates into many branches. Labor research pertaining to the subject is conducted in the framework of various main national directions (for example, "socialist enterprise," "lifestyle research," and "state socio-political concepts"; these are participated in by academic and other scientific institutes and by university faculties.

Despite the above-mentioned proliferation of the research projects, labor research has a comprehensive, ministerial main direction, "the social and economic interrelationships of work," the organizer and manager of which is the Ministry of Labor. The plan study for the main direction has defined the goals of the research for 90 years. Below we shall give brief information on the plans for the coming five-year period.

The research conducted in the institutes of the Ministry of Labor look back on a relatively short past. The foundations were laid in the previous five-year plan period, and now there are favorable signs that the research basis has been developed which is suitable for carrying out the scientific tasks which are becoming evident in the Sixth Five-Year Plan. In addition to the successful work of the institutes, it is indispensably necessary continuously to improve the scientific managing and organizing activity of the ministry. We must also rely more intensively on academicians in the labor area of speciality and on authorities working at universities.

The starting point for labor research is provided by the provisions of the Sixth Five-Year Plan. The main goals of the plan are conceived as follows in the law approved for the Sixth Five-Year Plan:

"In the period of the Sixth Five-Year Plan, the main economic task is that the economic base for the development of society should be further strengthened, that by relying on the results of science and technology, on international economic cooperation, and particularly on the economic integration of the CEMA countries economic work should become more efficient, and the economic equilibrium of the economy should be restored and solidified. We must guard the results already achieved in living standards and improve the living conditions of the population."

Of basic importance for labor science research is the concept according to which, in the plan period, the source for improvement of the equilibrium situation must be an increase in international competitiveness. Therefore, the plan prescribes that the sources for creating the equilibrium must be gradually transferred from the distribution area to the production and management area. The realization can be brought about along with an intensive development and relatively moderate growth. Intensive development requires that production should increase more rapidly than production and the efficiency of live work should rise significantly.

According to estimates, per capita production will rise by close to 20 percent, and the number of those employed in the material branches will decline by 2.5 percent. In summary, the efficiency of live labor and embodied labor must be improved by 12 percent as compared to the 8 percent achieved in the past 5 years.

To increase the efficiency of live labor to the extent called for, it is indispensably necessary that the socialist principle of distribution according to work should be better realized. That is, wages should depend more on the quantity of work performed, quality and results. The realization of wage payments according to the foregoing is made more difficult by the fact that in the plan period the average real wage per earner has remained unchanged.

The plans for personnel reduction mentioned above can be carried out only along with significant manpower shifts. According to the plans, industry and the construction industry will reduce manpower by 120,000 persons, while the infrastructural areas, primarily health and education, will increase personnel by 100,000 persons.

In agriculture the number of those employed in the basic activities will decline further and more slowly than those above, while the number of workers in the supplementary activities will grow.

The introduction of the five-day work week has caused significant changes in living and working conditions. Material means available for social goals must be used primarily for improving the conditions of those living under more difficult conditions, of those who are in disadvantageous circumstances from various points of view, and for guarding achievements alreadv arrived at.

In the interest of promoting the realization of the tasks outlined above for the Sixth Five-Year Plan and in preparing for the Seventh Five-Year Plan, research in the subject groups listed in the following have been decided on.

The Questions of Employment

During the socialist development of the Hungarian economy, we have realized full employment, continuously increased the productivity of social work, and increased and developed the technological basis of the economy. In the realization of these favorable processes, a significant role has been played by the rational use of manpower.

In addition to undoubtedly positive results, stresses, too, have risen in the utilization of manpower. For a considerable period of time the equilibrium between manpower supply and manpower demand has been disintegrated. Among the causes thereof, a role is played by the gradual decline in manpower sources, but we must look for the basic problem in the low level of live labor productivity. The demands for manpower have increased as a result of both factors. A shortage phychosis has developed in which actual and supposed manpower shortages have been confused. It follows from all these things that in the coming period research must deal:

--with the questions of creating a manpowr equilibrium, and

--with the possibilities of increasing the efficiency of manpower utilization within the enterprise.

In order to create a manpower equilibrium, it is necessary, by taking into account the expected technical development and changes in product composition, to study the changes that will take place and can be expected in the content of work performance and in organization, the desired and developing work place structure, and deriving from the foregoing the manpower movement initiated by the enterprise or the individual and the social effects thereof.

In the interest of increasing the efficiency of manpower utilization within the enterprise, it is necessary to examine enterprise management as a whole, the effects of the interest relations and the economic regulators, the methods of discovering reserves, the possibilities of introducing modern enterprise work organization procedures, and the problems of modernizing the product structure. We need such research results as will in practice be applicable to and contribute to increasing the efficiency of manpower utilization at the enterprises.

In the interest of successful research work it is necessary that, in addition to the economists, the work also be participated in by experts in organization, work psychology, and sociology.

The Questions of Material Incentive

One of the important questions in the solution of efficiency and equilibrium problems in the economy is the discovery of the actual interest relations and interest structures and on the basis thereof a change in the incentive-guidance system. In order to realize the points outlined above, it is necessary to research the following groups of subjects:

--The role of the wage and earnings regulatory system and of earning ratios in providing incentive for efficiency.

--Management interests, management attitude. The role of the management incentive system in relating the various interest levels.

In the framework of the first subject it is necessary to examine the possibilities of modernizing the wage and earnings regulatory system with attention to the solution of the problems that are known today (for example, the negative effects of the basis interest).

In examining the earning ratios we must establish what magnitudes of wage differences provide the best incentive to better and greater work, what kind of role the earning difference may play in manpower regrouping among the poorly and efficiently operating enterprises.

In the framework of the second subject it is necessary to examine why managers' interests do not clearly serve efficient management, how large a role is played by the characteristic attitude of the managers working at the various levels, by material interests, professional and political training, the possibilities of holding a position and of advancement, management talent, the demands made by the organs of guidance, and the various forms of moral recognition.

In the framework of the third subject it is necessary to examine the relationship between the internal enterprise incentive systems and economic regulation, including wage and earnings regulation. We must discover the experiences of the internal enterprise incentive systems that can be generalized and offer such methods to the managing organizations which, with the necessary modifications, can be used at many places.

Certain Questions of Social Policy

Various academic and other social science research institutes are occupied with the research of the subject groups. Considering the work distribution which is being developed, it is advisable in our area to conduct research in such subjects as are linked to the socio-political activity of the Ministry of Labor. On this basis, research in the following subjects is advisable:

--Conditions for the employment of manpower with limited performance capability, and the enterprise social activity related thereto.

--The basic questions and the possibilities for the further development of the pension system.

In the framework of the first subject and relying on the results of earlier research, it is necessary to develop specific solutions for the rational employment of the people concerned. We must deal with the causes for the individual and enterprise attitudes behind employment rehabilitation, and with the various interests.

In the framework of the second subject we must scientifically establish a basis for the proposals for the development of a pension system in harmony with our socioeconomic development and its level.

Questions of Enterprise Organization

Enterprise organization has an important role in realizing an increase in the efficiency of production. Our domestic organization practice lags significantly behind results in most of the developed capitalist and socialist countries. As a consequence, it is well known that we have great reserves in the area of enterprise organization, the discovery and mobilization of which must also be promoted with scientific means.

In consideration of the activity thus far of the scentific institutes dealing with the problems of organization science and in the interest of promoting the carrying out of tasks facing the ministry, research in the following subjects is advisable:

--An examination of the social and economic conditions of the state of organization.

--The working out of enterprise organization methods that will improve the state of organization.

--The development of modern work places and work organizations which will be in harmony with social, economic and technological development.

In the framework of the first subject we must discover those factors which hinder the successful use of organization methods. We must work out proposals and methods of solution for eliminating the factors of obstruction and reducing their effects.

In the second subject, by relying on the scientific results attained in discovering the components of organization and lack of organization, we must work out in the interest of improving the state of enterprise organization in given areas the methods that can be used at the managing organizations.

The timeliness of the investigation in the third subject is justified by the social obligation of a many-sided concern for the working man.

In the framework of the investigation we must discover such characteristics of work places and work organizations which in addition to the requirements of production and in the interest of their fulfillment devote great attention to work performance and the human requirements related to working conditions.

Questions of Labor Information System and the Forecasting of Labor Processes

In the framework of research it is necessary to develop a system for the unified processing of the data arriving through various channels. In doing this, it is necessary to assure an organic relationship with the unified information system of the economy.

We must arrive at the development of such forecasting models as will contribute to establishing a scientific base for the activity of forecasting the tasks of the ministry.

Questions of Work Psychology and Ergonomia

Both areas of science are closely linked to the employment, incentive and organization subjects described in the foregoing. We must use available research capacity primarily for research in these subjects. Accordingly, only modest possibilities will remain for the scientific investigation of independent subjects.

By relying on the results of work psychology research between 1976 and 1980, it is advisable to research:

--the work psychological factors in the agreement between person and area of work. Such research results must be achieved in this subject as can be used to increase work performance efficiency in current jobs.

As an independent subject in the field of ergonomia:

--it is possible to carry out research projects which further develop the theory of ergonomia and an improvement in the unification of the methods and the usefulness of the results.

Questions of Operational Research

In the framework of our research we must develop decision-preparing models that can be used in enterprise practice and computer programs. We must devote special attention to the modelling of labor processes.

In order to realize the research projects outlined above, improve the working conditions of the research places and make the best use of research results, the ministry has prepared an undertaking plan.

Indispensably necessary for high level research work is a knowledge of international results in certain subjects, and for our researchers it is of great importance to introduce their work internationally and to have them accepted. For this very reason, the scientific activity conducted in the CEMA framework continues to occupy an outstanding place in the international cooperation of our research places. At the same time they are further developing their relations with their socialist partners, the specialized agencies of the UN, and primarily with the International Labor Organization and its institutes.

To the extent that the further development of domestic and foreign relations accompany the improvement of the guidance and science organization activity of the ministry and the institutes, we can count on a development of scientific work and on a growth of results that can be used in practice.

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6691
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FARMS FIND BEEF CATTLE RAISING LOSING GAME

Budapest NEPSZABADSAG in Hungarian 23 Jun 81 p 5

[Article by Istvan Almasi: "Profitability of Slaughter Cattle Raising"]

[Text] Generalizing the experience of one farm is a dangerous thing to do. Yet in this case the manager of the Pankota State Farm is not far from the truth when he says with a bit of sad objectivity that on their farm the profit of the beef cattle operation decreased from 928,000 forints in 1978 to 51,000 forints last year. And the report from another farm in Alag is that beef cattle production closed with a profit of 2 forint 60 fillers per kilogram of beef cattle a few years ago, but last year it was close to a loss.

They did not forget either in Pankota or in Alag how to fatten cattle. On the contrary several measures were passed which decreased the costs. Yet they were not able to keep up with the vigorous rise of material and other costs present in raising beef cattle.

Seeing and experiencing this situation and worrying about the results of their economic operations, the decisions of economic managers are more and more uncertain concerning the raising of beef cattle. In Szerencs they are considering eliminating their beef cattle stock of 300 animals. And the Nagyberek people who could even double their cattle stock and slaughter cattle stock in a short time, are not planning any significant increases since if the present trend continues for any length of time--that is, if the production costs keep going up faster than the sales price--, then the entire operation could quickly turn into a losing proposition and have to ask the state for the cost of abolishing it.

Production Costs Increased

It is sufficient to cast just one look at the accounting data of the farms to conclude that a contradictory situation has developed in the domestic cattle raising process. The dairy operations--especially those which can increase the amount of milk sold from year to year--are showing very nice profits. As a result, the managers of these operations are doing everything possible to increase milk production. Being aware of this phenomenon, this is the calculation the Sixth Five-Year Plan makes: in 1985, even 40,000 fewer milk producing cows than we had in 1980 will be able to satisfy the country's milk needs, that is, they will produce 80 million more liters of milk than the larger 1980 stock did.

And this is no small thing. Some 40,000 fewer stall spaces will be needed. This many less cows will have to be cared for and tended. More details could be given, but even a hundred words lead to just one conclusion: such a development in milk production is unquestionably advantageous to the country. Credit for this pleasing phenomenon must be given to two circumstances: to the incentives developed in milk production, and to the high milk production of the Holstein-Friese type and its cross breeds.

The pure bred Holstein-Friese type which is bred for the sole purpose of milk production gives 2,000 to 3,000 more liters of milk per year per cow than does the dual purpose--milk and beef--Hungarian Spotted. Thus it is only natural that the large dairy operations on these, and on cows cross bred with the Holstein-Friese.

The process which began 20 years ago in the case of poultry, also began years ago in cattle raising. Egg and meat production have been completely separated in raising, keeping, and feeding poultry. The old dual purpose type--egg and meat--was not able to compete with either. This same process is developing now in cattle raising. But in addition to the weaknesses in keeping and breeding the animals, this development is taking place in a half-and-half manner, due primarily to the economic regulations. While the economic regulatory system of milk production has been clearly urging more and better for years, specialization in the meat area is unsolved. This failure to provide a solution can be seen particularly well now when production costs have taken an upswing. It so happened that in Pankota the cost of producing 1 kg of beef increased by almost 10 forints in 2 years.

Half Domestic, Half for Export

Beef cattle production and raising deserves particular attention on the farms and centrally these days not only because the time of to be or not to be, or more precisely of stagnate or develop, has now arrived. The situation is exciting for a whole series of other reasons also. One of these is that one-half of the approximately 120,000 tons of beef production serves the domestic supply, the other half is for export. Last year the latter provided an income of roughly $200 million.

If the number of milk cows decreases by the planned number, naturally fewer calves will be born and fewer offspring can be fattened. Even by rough calculations, [illegible] years from now this will mean 16,000 fewer tons of beef. But our Sixth Five-Year Plan specifies an increase in beef production, and acceleration of beef exports. Not to mention the fact that the Holstein-Friese and their cross breeds used for milk production purposes--and this should be obvious--cannot compete in the quality or quantity of beef they yield with the meat producing types, particularly meat producing types which are a little more demanding. Thus a branch producing exports of $200 million for our national economy can be questioned only if it becomes unprofitable.

Comparing it with other branches, the profitability of beef production cannot be considered bad on the national economic scale. Particularly not now when the marketing conditions and opportunities are improving. This also refers to the single-purpose beef cattle; that is, to the branch which now provides no, or hardly any, profit for our major agricultural operations. To prove this, the advantages of beef exports--it is worthwhile remembering that last year a profit of several hundred million forints was derived by the major enterprise which handles the wholesale purchase of cattle on the hoof.

Increasing the beef cattle stock is also not without merit for another reason. In contrast with the demanding and expensive keeping of milk cows, raising beef cattle requires extremely simple raising conditions. Grasslands and a whole series of byproducts, including corn stalks of several million tons, can be used for beef cattle with excellent results. We have about 1.2 million hectares of grasslands, one half of which can actually be considered only as soil protective sod, but the other half produces significant amounts of hay with little expenditure. Calculations based on our meadows and pastures, indicate that corn stalks and other byproducts could sustain several hundred thousand beef cows. Several hundred thousand cows for the most part on feed which, due to the absence of this animal, either does not even grow now, or is quite simply wasted [sic].

Guarantees Are Needed

The numbers are worth thinking about. In fact, today's slaughter cattle export could perhaps be doubled by greatly increasing beef cattle stock. But let us remain on the grounds of the present moment's realities, and let us consider the dreams--which in this case are not fantastic at all--to be long-range programs which we can implement gradually.

The present reality is that in contrast with 56,000 beef cows in 1975, our agriculture now has 75,000 beef cows. The beef inventory has increased by only 19,000 in the last 5 years, while many things were cleared up concerning type, and methods of raising and feeding [the animals]. The plan projects 115,000 beef cows by 1985, that is, an increase of 40,000. To achieve the beef production plan we would need even more beef cows than this. And if the grass or byproducts which would otherwise be wasted, can be converted into dollars by means of beef cattle, then we cannot proceed fast enough.

But let's not look at the possibility only onesidedly. Tools, machinery, materials and investment are needed to utilize the unused grasses and the wasted byproducts. It takes 4 years in the economy for a calf to become a beef cow, and for its first offspring to grow to the point of being slaughter-ready. Four years which demand only investments, expenditures for meadows, pastures, watering facilities, sheds, care--without one single penny of income. By one calculation this cost is 50,000 forints per cow, by other calculations--because the circumstances differ and since there are no two farms with the same natural conditions--70,000 forints.

In addition, those farms which own large areas of grasslands, are eternally battling with the lack of equipment and money because of their unfavorable natural conditions--because for the most part the meadows and pastures remain as they are only at those places where they cannot be plowed up and turned into cultivated lands. They not only cannot make investments 4 years in advance, but often they can just barely come up with the costs to cover current production.

No matter how advantageous the growth of keeping and raising beef cattle proves to be nationally, creating the operational incentives is an extremely difficult task. One which is not easy to solve. Thought must therefore be given to organizing various economic associations in which the farms with strong capital would also become members joining the weaker ones which own the pastures, in order to make use of the land area. The practice of offering export reimbursement to the producers has worked out well in mutton production. We are certain that the beef producer must also be brought much closer to exports, and to the exporting incentives than he is today.

This Is a Possible Way

This year the meat industry's branch which handles the wholesale purchasing of beef cattle, will slightly improve the wholesale prices--using a portion of the significant profits generated by it in beef exports. This is better than nothing. In any case the domestic raising of beef cattle must have a future, and our major enterprises must also do all they can in order to make it profitable. The fact is that this branch does not incur large expenditures. And where this recognition is properly implemented in practice--like, for example, in the Tordas-Gyuro TSZ [producer cooperative],--there the beef cattle branch operates with significant profits even under the present circumstances. There is a large potential area for improving profitability in the operations, by making really good use of the pastures and by efficiently utilizing manual labor. It is quite conspicuous that in a significant portion of the major enterprises this branch is still burdened with excessive costs of labor intensitivity. The high labor costs indicates among other things insufficiently planned labor organization indicating that there are reserves in this area.

Our interests clearly demand that the attitude toward beef cattle raising should change in our major agricultural enterprises, and that the insecurity be eliminated. Much remains to be done for this in words as well as in deeds. Those who undertake beef cattle raising and meat production, are setting up a long-range project, and in addition to financial incentives they also need a feeling of security for this. Security which urges one to make greater efforts, which in itself is an indispensable precondition of progress.

8364
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AGRICULTURAL STAFF APPOINTED TO SUPERVISE HARVEST

Warsaw DZIENNIK LUDOWY in Polish 2 Jul 81 pp 1, 5

[Text] The "early" harvest has begun. On June 25th, the president of the Council of Ministers, Gen Wojciech Jaruzelski, appointed a staff to supervise the work of harvesting and processing farm crops.

The job of the staff, whose work is being directed by deputy premier Roman Malinowski, chairman of the Council on Food Management, will be to make competent decisions and to supervise tasks so that the harvesting and processing of farm products will be done efficiently and that agriculture and the food industry are guaranteed essential supplies and services.

Because the staff is also charged with coordinating the activities of the individual ministries, cooperative organizations and institutions on matters pertaining to harvesting, procuring and processing crops, the president of the Council of Ministers granted the staff chairman full powers in those matters.

Appropriate local staffs will also be appointed at the voivodship level.

At the central staff meeting on the first of this month, an assessment was made of the state of preparedness of agriculture, the agro-food industry and the individual ministries, cooperative organizations and institutions, for the harvests and the subsequently important farm processing functions.

Many specific decisions were made which should make the final phase of the preparations more effective and ensure that the entire economy will give farming the assistance it needs in harvesting and processing this year's crops. This support, despite the priority given to agriculture and the food economy, is nevertheless still inadequate; more rapid implementation of the decisions already made is especially imperative and there must be better coordination of specific undertakings. Regardless of existing economic difficulties, or actually because of them, we must this year, as has been emphasized, be especially conscientious in seeing to it that everything that grows in our fields and orchards is fully harvested and properly utilized.

An alternate plan for harvesting and processing the crops has been prepared. If the weather is good, the farmers should be able to manage the harvesting themselves, provided that they are given normal, meaning good, service by the Agricultural Circle Cooperatives and Rural Commune Cooperatives, and on-time deliveries of spare parts, fuel and power. Neighborly assistance may also be required. In case of bad weather, however, farming must be given greater assistance in the form of technical resources, transport, specialists assigned from work plants, and organized workers' groups.

These preparations have already been made. The duties and responsibilities of the ministries, voivodship heads, and all institutions and organizations working for the needs of the village have been precisely defined. The ministers of the following industries: heavy and agricultural machinery, machine engineering, chemical, light, and foreign trade and maritime economy, have been charged with ensuring the timely delivery of spare parts, including tires, V-belts, batteries, filters for tractors, farming equipment, transport means, cloth and cord for harvesting machines and containers required for processing. Additional foreign exchange funds, although admittedly small, will be allocated for the procurement of the most critical spare parts and for lacquer and polyethylene for the production of containers needed in the fruit and vegetable processing plants.

The Minister of Transportation will give first priority during the period from July 15 to October 15 to the hauling of grain and rape by the Polish State Railroads and the State Motor Transport. The crops will be transported by the Polish State Railroads by the most expeditious routes.

Several hundred additional delivery vehicles of the "Zuk" type--large vans--will be allotted to farming and the agricultural circles (to be used in case of breakdowns) and to the agro-food industry (to service the potato supply and processing terminals).

The sugar industry will be given larger supplies of limestone and coal and more "Fadroma" type loaders. Attempts are being made to supply fuel and power to agriculture and processing more conveniently.

Should problems arise in harvesting and processing crops, the ministers and voivodship heads may authorize directors of subordinate organizational units to send organized teams of workers to assist in the harvest, as well as qualified specialists to service tractors and the vehicles used to haul the farm products, and to supervise the shop work.

Warehouse facilities should be made available by units of the socialized economy for temporary storage of grain, rape and sowable seed, should this be necessary.

Obviously, decisions alone will not solve matters. They must be supported by concrete and efficient work, not only by the farmers but by all those who are supposed to assist them. The time to eliminate, or in any case, to alleviate the deficiencies, is already very short.

Locally, especially where the soil is light (e.g., in the Zielona Gora voivodship in the area of the State Farms complex in Swiebodzin and Zagan) work has already begun on cutting rape by the so-called two-phase system. In some places, winter barley is being harvested. These are sporadic cases, but soon the "early" harvest will go into full swing, and about July 20th the main harvesting work, the reaping of cereal grains, will begin.

The situation in crop production, as assessed at the staff meeting, is relatively favorable. Crops promise to be quite good, although much will depend on the weather during the final stages of grain ripening and particularly during the later vegetation of potatoes and sugar beets.

So that nothing in these harvests is lost, a maximum effort must be made to speed up deliveries, both from domestic and foreign production, of the most urgently needed spare parts and raw materials.

On June 20th, in the Engineering Service for Agriculture enterprises and the machinery users' shops, repairs were not complete, for lack of spare parts and accessories, on 5,300 rotary mowers, 1,300 self-propelled chaff-cutters, 5,800 "Bizon" harvesters, 5,000 pickup balers and 3,700 pickup trailers, 5,600 potato harvesters, 12,500 tractor potato diggers, and over 1,800 beet harvesters. The lack of crankshafts, crankcases, batteries, oil filters and other parts, means that thousands of tractors are out of commission. For similar reasons, i.e., for lack of parts, many self-propelled chaff-cutters and balers, including those imported from the GDR, stand idle.

Our industry is being reorganized in favor of production for agriculture, but the process is very laborious. Many of the objective causes are attributed chiefly to the lack of raw materials and semifinished products, mainly imported ones. There are large shortages of rubber (for the production of tires and rubber elements), lead for batteries, tin, etc. Due to various efforts, some difficulties are alleviated, e.g., considerable increases [illegible words] the situation as regards domestically produced oil filters is improving somewhat. There are more batteries for the "Bizon" harvester, although the shortage is far from satisfied.

But many problems can be resolved by eliminating organizational paresis and by more efficient operation. For example, orders and deliveries from abroad are delayed far too long; often the necessary formalities are simply accomplished too late for the ordered goods to arrive on time. It happens also, as in the case of cord to bind sheaves, for example, that imported deliveries, in considerable quantities, have already arrived but are lying in the warehouses because a retail price on them has not yet been set. In turn, the shortage of cloth for harvesting machines, reported by agriculture and the technical facilities, occurs because the cloth produced by the light industry plants is of poor quality. It shrinks during waterproofing and then does not meet requirements. The tin can industry cannot provide cans in sufficient quantity due to lack of raw materials, while at the same time there are some stocks of so-called tinplate which our industry does not want but that foreign purchasers would willingly buy. There are more such examples.

During the decisionmaking at the staff meeting, attention was called primarily to solving those problems that can now be eliminated. Deputy premier Malinowski set specific deadlines and methods for accomplishing the decisions that were made. We cannot allow a situation, he emphasized, in which the anticipated larger harvests are not fully and efficiently processed so as to improve the supply of food to the market. (PAP)

9299
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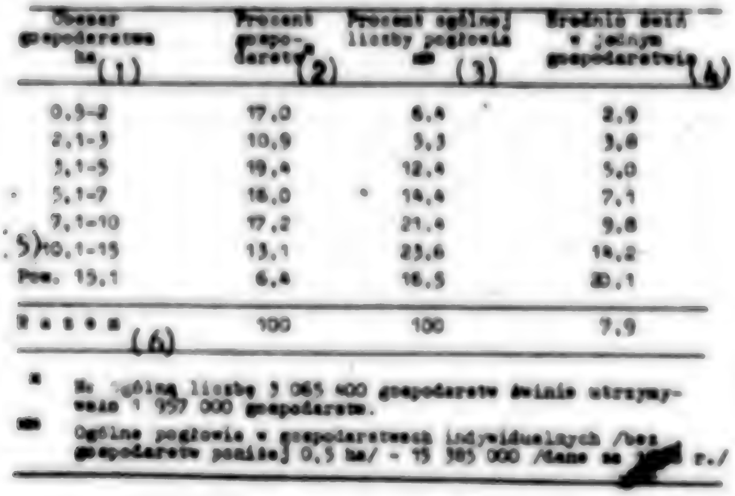
HOG PRODUCTION IN PRIVATE FARMS DISCUSSED

Warsaw PRZEGLAD HODOWLANY in Polish 10-31 Mar 81 pp 2-4

[Article by Doctor Habilitatis Stanislaw Plonka: "Developmental Conditions of Pork Production in Private Farms"]

[Text] Table 1 represents the structure of farms which engage in hog farming, Table 2 the extent of production in herds of various sizes. Both tables indicate that the production of hogs in Poland is very dispersed. With a head count in individual farming amounting to a little over 15 million head (1978), almost 2 million farms were engaged in hog production, and of those, almost 60 percent raised no more than 5 head. Together those 60 percent raised 22 percent of total hog production. In 0.9 percent of these farms there were in excess of 50 hogs raised, their total share in head count amounted to 9.7 percent. Such a large dispersion creates enormous difficulties in the development of reasonable methods for keeping and feeding hogs and in their production management.

Table 1. Proportion of Farms and Percentage of Total Number of Hogs Depending on the Size of Farm (GUS, 1978)



Obszar gospodarstwa ha (1)	Procent gospodarstw* (2)	Procent ogólnej liczby pogłowia ** (3)	Średnio świń w jednym gospodarstwie (4)
0,5-2	17,0	6,4	2,9
2,1-3	10,9	5,3	3,8
3,1-5	19,4	12,4	5,0
5,1-7	16,0	14,4	7,1
7,1-10	17,2	21,4	9,8
(5) 10,1-15	13,1	23,6	14,2
Pow. 15,1	6,4	16,5	20,1
Razem (6)	100	100	7,9

* Na ogólną liczbę 3 065 400 gospodarstw świnie utrzymywało 1 957 000 gospodarstw.

** Ogólne pogłowie w gospodarstwach indywidualnych /bez gospodarstw poniżej 0,5 ha/ - 15 385 000 /dane za [illegible] r./

[Key on following page]

Key:

1. Farm size in hectares
2. Percentage of farms*
3. Percentage of the total number of hogs**
4. Average number of hogs in one farm
5. Over, in excess of
6. Total

*From a total of 3,065,400 farms, 1,957,000 raised hogs

**Total number of hogs in private farms (farms with less than 0.5 hectare in acreage not included)--15,385,000. Data for 1978.

By the end of 1978, Denmark had 9.2 million hogs which were raised on 76,000 farms. Only 9 percent of the total were raised in herds of 1-49 head, 33 percent were raised in herds of 50-199 head and 58 percent in herds of over 200 head. With such a herd structure it is easy to provide technical advice and services for large numbers of animals.

Such large dispersion of hog farming as one finds in Poland appears, only on the surface, to be the best economic solution. It is certain that each farm is capable of raising at least one head per year, and for that there is no need for special investments or supply of feed. One cannot, however, develop a reasonable program for hog production on the basis of "each farm will increase production." Such a principle will not produce the desired effect. The reason is mainly that farms which raise barely five hogs will never count on hog production as their main source of income. And there are 60 percent of such farms among those which engage in hog production.

One can assume, therefore, that under unfavorable conditions for hog farming, those farms may give up hog husbandry without creating a large dent in their income rate. Taking into account total head count (in 1978, this amounted to 3.4 million head), such a decision may well have considerable influence on overall pork production. It is not known if the next grouping of farms could be regarded in the same way, those raising 6-10 hogs; there were 17.1 percent of them in the country (from among those who raise hogs), and together they accounted for 15.4 percent of the total head count. To sum it up, control over such a diversified workshop of pork slaughter-animal production is certainly very difficult.

It is absolutely necessary, in addition to any immediate steps taken to increase hog production, in a long-range plan, to take measures which tend to increase the number of farms specializing in hog production and for which hog production would be the principal source of income. One can easily calculate that it would be sufficient to have 150,000 farms, each raising 100 head to obtain 15 million hogs. In 1978, there were only 3,000 such farms in the country. An increased number of farms with large swine herds, supplied with technical assistance, supported by supplies of equipment and proper types of feed concentrates and concentrate mixtures would influence stabilization of production.

Conditions needed for growth and stabilization of hog production are: proper organization, improvement of feed, proper economic conditions and supplies of appropriate equipment. These specific conditions are addressed below in the given order.

Organization of Production

One can stipulate that many farms which are engaged in hog production are not in a position to undertake specialization, due to the small size of the enterprise (for example, in 1978, a total of 54 000 farms 3 hectares or less in area, engaged in hog raising). However, if the owners of these farms want to raise hogs one cannot discourage them. One has to make it possible for them to obtain protein concentrates so that they could utilize their own feed supplies economically.

Larger farms engaged in pork slaughter-animal production should be included within a certain organizational framework. Above all, the activity of the Hog Breeders Association (ZPTC) has to be restored, within its framework one could organize hog breeders circles in villages or gminas having a large proportion of hog farmers.

A circle would bring together specializing farmers. It would be desirable that separate groups be formed, those specializing in breeding shoats and separate groups of those fattening porkers. It would be a rule that the latter would be supplied with shoats from the former. With such cooperation, the shoat breeder would have an assured market (with an agreed, guaranteed price), and the one who conducted the fattening process would have an assurance of obtaining the supplies needed for fattening from an assured source and of a known quality. In the future such circles, after strengthening their position, could think about organizing a common nursery for piglets which were prematurely separated from sows. Each circle would be connected with a designated fodder-mixing plant which could supply the circle members directly with protein concentrates and medium-protein mixes. Also desirable would be a connection between the porker-raiser group with a designated slaughterhouse in order to permit transportation control, holding of animals prior to slaughter and quality control of the animals delivered for slaughter.

I will digress here: We all know that our economy suffers large losses because: a) nonreceipt in time of animals which are ready for slaughter; b) extended transportation from the farm to slaughterhouse; c) longtime holding of animals prior to slaughter. Conclusion: A need to activate slaughterhouses (not meat-processing plants) which would supply an up-to-date, local meat market. This would shorten the distance from farm to slaughterhouse as well as the time interval between the end of fattening to actual slaughter. In this way such losses could be avoided, no one has to be convinced of it.

The activity of the circle and its liaison with the fodder-mixing plant and the slaughterhouse should be supported by a technical service of the ZPTC. The duties of this service would include: organization of supplies of replacement materials to shoat producers, deliveries of shoats from the breeders to producers of porkers, deliveries of mixes and concentrates from the mixing plant to the producers, control of animal deliveries to slaughterhouse, collection of information relative to the quality of slaughter animals and instruction in raising and feeding of the animals.

Such organization of hog production would exert a positive influence on stabilization of production (a person seriously engaged in hog specialization would be less likely to give up hog farming), but above all it would facilitate all activities aimed at modernization and improvement of hog production.

An essential step would be to provide appropriate incentives for organization of specialized enterprises and production groups for shoats and porkers. It would be worth considering certain preferences for such circles in obtaining supplies and credits. Farms which produce shoats should have guaranteed prices for their product independent of free market variations.

Improvement of Feed

When speaking of swine feeding one has to realize one basic fact: The swine is not a ruminant animal. Therefore, it cannot be fed hay, straw or large amounts of grass.

If we want to produce pork, we have to be knowledgeable of the basic feeds that need to be made available for that purpose. Whey and kitchen slops or other feeds prepared from food leftovers could and even should be utilized in hog feeding. In any case those are only small items in the feed base for hogs.

Under our growing conditions, potatoes, grains and partially beets will form the base of hog feeds. It is a misunderstanding to make a problem out of excessive grain-intensiveness of pork production. In the majority of countries of the world, grain production is being developed not for the purpose of earmarking the entire production for human consumption, but to process it into meat. If it is a Polish tradition to eat mainly pork meat, then a decision should be made that even grain is suitable for hog feeding.

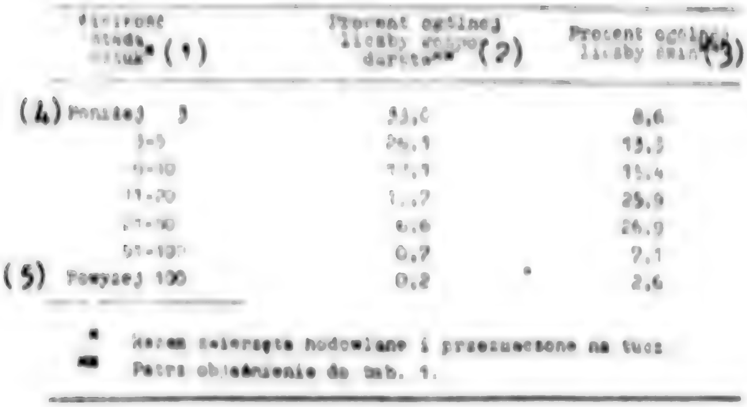
The efforts to limit the consumption of grain in hog feeding by replacing grain with the much publicized Poly-Past beets are correct, however, one has to remember that feeding models of this type are, at least temporarily, of very limited application, because, for one, the total crop of Poly-Past beets in individual farms is insignificant. Therefore, it is currently inadvisable to seek solutions to the hog-feeding problem by eliminating grains from the feed. Something else has to be done, specifically: grains and other feeds should be employed more effectively in hog feeding.

In the hog-feeding process, in particular on small private farms, the lack of protein is very apparent. This lack is felt more acutely when more and more potatoes are included in hog-feed portions (in one j.o. [accounting?] unit there is 42 grams of digestible protein in potatoes and in barley there is 73 grams). This results in very low growth rate (about 300 grams) and a very bad exploitation of feed (up to six j.o. units per kg of growth).

In this situation, one can ask a question: Would it be possible to lower the amount of imported grains by offering on the feed market, without limitations, protein concentrates which would fortify local farm feeds (potatoes and grain) and would at the same time offer considerable savings in hog feeding?

It is true that domestic protein supplies are modest and that in the world markets protein feeds (soybean) are considerably more expensive than grains. However, when one compares the cost of hog feeding exclusively with grains to the cost of feeding with a mixture composed of grains and soya meal, it becomes apparent that the second alternative offers considerable savings in grain consumption and will considerably lower the cost connected with feed input.

Table 2. Proportion of Farms and Percentage of Total Number of Hogs Depending on the Size of the Herd (GUS, 1978)



Wielkość stada, sztuk* (1)	Procent ogólnej liczby gospodarstw** (2)	Procent ogólnej liczby świń** (3)
(4) Poniżej 3	33,0	8,6
3-5	26,1	13,3
6-10	[illegible]	15,4
11-20	[illegible]	25,9
21-50	6,6	26,9
51-100	0,7	7,1
(5) Powyżej 100	0,2	2,6

* Razem zwierzęta hodowlane i przeznaczone na tucz

** Patrz objaśnienie do tab. 1.

Key:

1. Size of the herd, head*
2. Percentage of total number of farms**
3. Percentage of total number of hogs**
4. Less than
5. In excess of

*Total of animals being raised and destined for slaughter

**See explanation in Table 1.

Based on the above reasoning, illustrated below are the compiled data drawn from experimental data, relative to consumption of grains and soya meal and outlays for import of these feeds, calculated for 10 million porkers (this information is based on Rolimpex, dated 13 December 1980, given prices for 1 ton of feed barley at $200.00, and 1 ton of soya meal at $310.00.

For one porker fattened from 25 to 100 kg

Feed: Exclusively Corn	Feed: Grain Enriched by Soya Meal
--daily growth......................284 g	--daily growth......................740 g
--days fattened....................264	--days fattened....................101
--per kg growth..............5.8 kg feed	--per kg growth..............2.6 kg feed
--grain consumption for fattening..................435 kg	--grain consumption for fattening..................160 kg (at 2.13 kg/kg)
	--soybean consumption for fattening.................. 35 kg (at 0.47 kg/kg)

Based on the above data obtained from Danish literature, one can calculate that in order to produce 10 million porkers, in the case of feeding by grain alone, it would be necessary to buy 4.35 million tons of grain valued at $870 million. However, when feeding by grain enriched with soy protein, only 1.6 million tons of grain would be needed, value $320 million plus 353,000 tons of soya meal valued at $109 million, for a total value of $429 million.

Therefore, fattening porkers with grain alone will consume, for 10 million head, 4.35 million tons of grains at a cost of $870 million, but feeding with grain and soya meal mixture, the same 10 million porkers will consume 1.6 million tons of grains and 0.35 million tons of soya meal with a combined value of $429 million.

One can, of course, have some doubts that our pigs would attain the same excellent conversion of feed as those used in the Danish experiments. It is not, however, impossible under our conditions to achieve a daily growth of 650 grams and a feed-utilization ratio on the level of 3.8 kg per kg of growth. In such case, a calculation will show that in order to produce 10 million porkers from 25 kg to 100 kg, requires 2.34 million tons of grain valued at $468 million plus 510,000 tons of soya meal valued at $158.1 million. Together this amounts to $626.1 million, which compared to $870 million gives us a difference of $243.9 million.

What conclusions can we draw from this?

A reduction of pressure on the grain market and, at the same time, a possibility to reduce the amount of imported grain are probable, under the condition that the domestic supplies of grain and potatoes will be better utilized in hog feeding. In order to achieve this, it will be necessary to alter the structure of imported feeds. The feed industry must above all be supplied with protein raw materials in such quantities that agriculture's requirements for proteins are fully covered.

It should be a rule that not a single kilogram of grain or potatoes be fed without a protein supplement. Such management of feeds would permit a considerable reduction of feed consumption in hog feeding and thus lower the deficiencies in the feed base. Consequently this would permit a reduction in the amount of imported grains.

Current calculations show that the feed industry should deliver the following amounts of concentrates and concentrate mixtures, with a stipulation of a 20 million yearly porker production (in thousands of tons):

--mixture P	300
--mixture L	450
--mixture T-1	2,000
--Prowit	750

The above data take into account joint needs of gilts with piglets, shoats and porkers.

Speaking of commercial feeds, one has to mention an absolute need to initiate actions leading to an improvement of the quality of mixed and concentrated products of the feed industry. It is no secret that the pork producers often complain about the quality of mixes offered to them. There are many reasons for this state of affairs. One such reason is the bad quality of raw materials delivered to the mixing plants. It is understood that even the substandard qualities of grains and offal should be utilized in feeding animals, however, if the feed industry does utilize such materials, the products so obtained should be appropriately labeled and also should be cheaper. The hog farmer has to be warned that he is being offered goods of inferior quality, though they are cheaper.

Economic Relationships

Using actual prices of slaughter animals--56 zloty per kilogram (zl/kg)--and feed (a mixture of 88 percent barley meal and 12 percent Prowit--cost 5,978 zl per ton), one can calculate that a producer will receive 1,945 zl of farm income by selling one porker weighing 90 kg.

Cost of Porker Production and Farm Income:

Shoat, 25 kg x 56 zl + 10 percent	= 1,540 zl
Feed (fattening from 25 kg to 90 kg)	
65 kg x 4 kg x 5.98 zl	= 1,555 zl
Total (shoat + feed)	= 3,095 zl
Fattened porker value (90 kg x 56 zl)	= 5,040 zl
Farm income (labor cost, building amortization and profit)	= 1,945 zl

Farm income is not pure profit, one has to allow in the cost accounting for labor costs and building amortization. Nevertheless, 1,945 zl is a considerable sum of money which will permit, for example, purchase of 340 kg of barley meal (at government prices) or a shoat weighing 31 kg.

In Denmark, during April 1979, a farmer received, on an average, 633 Danish kronen [dkr] for one porker. His earlier expenses were 244 dkr for purchase of a 25-kg shoat and 317 dkr to cover the cost of feed. Therefore, his farm income, calculated per porker, was 72 dkr, and for that sum the Danish farmer could buy 60 kg of feed grain or cover the cost of a 7.4-kg shoat.

Does that mean that pig raising is more profitable for a Polish farmer than for a Danish farmer? If pork producers in Poland could buy unlimited quantities of good barley meal at 5,750 zl/ton and good quality Prowit concentrates at 7,650 zl/ton, then without a doubt hog farming in our country would be profitable.

However, in hog farming cost accounting one has to allow for two factors: First, the free market prices for grains and potatoes, and second, the feed input for production of 1 kilogram of growth. Currently the free market price of grains is about 1,000 zl/100 kg, not to mention the potato, whose prices this year are so high that no reasonably priced feed could reach the cost of potato feeding.

Feed consumption, should there be a shortage or bad-quality protein concentrates and mixtures, will not be 4 kg/kg of growth but at least 5 kg. If, therefore, one allows in a calculation th[illegible]ilogram of feed costs 10 zl, and its consumption for 1 kilogram of growth [illegible] to 5 kg, then the cost of a 90 kg porker production would be 4,790 zl. Thus, farm income would be reduced to 250 zl. This income must cover the cost of labor, building amortization, animal insurance and veterinary care. If such is the case, any talk about the profitability of hog production is extremely doubtful.

In order to make hog farming profitable two conditions have to be fulfilled:

a) Feed prices must correspond to the price of grains and potatoes on the free market or, assuming that the prices of slaughter animals remain fixed, the producer may purchase unlimited quantities of feed at government prices.

b) The producer must have a guarantee to be able to buy appropriate amounts of good-quality concentrates, because only thus he may count on attaining a favorable factor of feed utilization.

Equipment Supplies

It is impossible to imagine organization of a specialized pork-production workshop without appropriate machinery and equipment. It is necessary to start producing equipment which would insure proper storage, grinding, mixing and measurement of feed. This equipment, placed in assembly-line fashion, should be adjusted, by size, to the scale of production of an average specialized farm (for example, 200 porkers on line or 15 gilts with their offspring). The basic components of such a line are: silos for storage of grain and concentrates, grinder, mixer and a nand cart of special construction used for delivery of feed to the troughs (a hand-crank activates a worm-screw conveyor which measures feed into a trough, proper adjustment permits the delivery of the desired quantity of feed to the trough with one turn of the crank).

Regarding investment construction, there is a need to make available to the specialized farms a full assortment of components (stalls, grills, water troughs), materials for construction of pens for different types of pigs, and also equipment for mechanization of manure removal and ventilation.

Conclusions

--Animal husbandry growth in private farms is possible through organization of a large number of specialized farms.

--In order to facilitate organizational and educational activities it is necessary to reactivate, as soon as possible, the activities of the ZPTC.

--An improvement of hog breeding efficacy and effective use of farm feeds is possible provided that sufficient quantities of protein concentrates be made available to the producers of hogs. This requires a structural change of feed imports (reduce grain import but increase concentrate imports).

--One of the principal conditions for growth of hog production is the establishment of slaughter-animal prices which reflect actual costs of production.

--In order to create a proper workshop of specialized farming, it is necessary to provide appropriate machinery and equipment which are necessary to modernization and construction of new buildings (pens, manure removal, ventilation) in connection with provisions for storage and mixing of feed.

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ROMANIA

FACTORS INVOLVED IN INCREASING PRODUCTIVE CAPACITY STUDIED

Bucharest REVISTA ECONOMICA in Romanian No 21, 22 May 81 pp 11-12

[Article by Dr Vasile M. Popescu: "The Growth of Production Capacity"]

[Text] The attainment of the objectives for forging the multilaterally developed socialist society in our country presupposes constant concern for rapidly developing the production forces, the technical-material base, to the level of the progress registered by world science and technology. The country's economic power, the matter of reducing and making up the gaps with regard to the developed countries, the changing of the national economy's structure and the forging of a unified, modern, efficient and balanced national economic complex, the capacity to adapt the economy to the changes that have occurred in the field of production forces and in the structure of social production on a national and international level, the raising of the well-being of the working people, the guarantee of the country's independence, depend on the level, the structure and the efficiency of the utilization of the technical-material base. "We must understand," Comrade Nicolae Ceausescu pointed out, "that only the development of the production forces and the growth of national wealth represent the guarantee of Romania's communist future, of the people's well-being, the guarantee of the homeland's independence and sovereignty."

The Growth of the Degree of Technical Equipping of Labor

Understanding fully the dialectical unity between accumulation, development and well-being, the party has demonstrated that the systematic allocation of a large part of national income for development has constituted and constitutes a vital imperative that springs from the necessity of providing constant rates of growth and of creation of a strong technical-material base in optimum proportions, in order to provide for the country's economic and social progress, its active participation in the exchange of material values on a world level. As has been pointed out, the rate of accumulation is 30 percent in the 1981-1985 5-year period, reflecting the new conditions under which the process of economic growth will occur. The efforts for development are reflected in the implementation of a vast investment program (Table 1). In the 1951-1980 period, 2,173.9 billion lei were invested in the national economy. Especially in the years after 1965, investment programs of greater and greater proportions in comparison with the previous period, as well as from 5-year period to 5-year period, have been carried out. In the 1976-1980 5-year period alone, investment work valued at 932.3 billion lei was performed, its volume being almost equal to that of the investments during the three previous 5-year periods. In the current 5-year period, a volume of investments (1.30-1.35 trillion lei) higher than the entire volume made during the 1951-1975 period will be allocated.

Table 1. The Investments Made in the National Economy in the 1951-1980 Period

Period	Volume of Investments (billions of lei)	Percentage of 5-Year Periods in Total Volume of Investments (%)	Growth Compared with Previous Period (%)	Average Annual Rate of Growth (%)
1951-1955	61.9	2.85	100.0	18.2
1956-1960	100.2	4.61	161.9	10.1
1961-1965	199.7	9.19	199.3	14.8
1966-1970	330.3	15.22	165.6	10.65
1971-1975	594.0	25.25	166.0	10.7
1976-1980	932.3	42.88	169.8	11.15

The efforts made in this direction, which demonstrate graphically the Romanian economy's vigor, are concretized in the marked growth of the fixed assets, mainly the productive ones. The value of the fixed assets was 1,870 billion lei in 1980, as compared with 1,202.3 billion lei in 1975 and 757. /final digit illegible/ billion lei in 1970, with an average annual rate of 9.25 percent being registered in the 1976-1980 period. At the end of the current 5-year period, the total volume of fixed assets in the national economy will come to 3.00 trillion lei, there being achieved, consequently, an absolute increase of over 1.00 trillion lei, which is equal to that achieved in the whole 1971-1980 period.

These figures bring out what is called the young age of the fixed assets: for instance, 59.5 percent of all the fixed assets existing in 1980 were put into operation in the last decade. The coefficient of renovation of fixed assets, that is, the ratio between the fixed assets put into operation each year and those existing at the start of the year, will also be high during the current 5-year period. Thus, of all the fixed assets that the national economy will have in 1985, about 60 percent will be put into operation after 1975 and about 37.6 percent will have an age below 5 years. All these things constitute a graphic expression of the modern character of our economy's technical-material base.

The party's policy of more markedly equipping the national economy with new and modern fixed assets is also brought out by the way in which these assets are concretized in different branches and sectors of economic and social activity (Table 2). In this direction, in particular, the concern for developing the production sectors ought to be noted. It should be mentioned that in the current 5-year period, of all the fixed assets, about 77 percent will expand the technical equipping of the branches of material production and about 23 percent the material base for social and cultural activities. It is thus anticipated that over 1,200 new capacities will built and about 1,000 important industrial units modernized, over 375 new capacities built in agriculture, as well as many other economic, scientific, social and cultural facilities.

Analyzing the structure of the fixed assets according to branches, one observes that industry occupies the main place, with about 48 percent of all the fixed assets being in it in 1985. The modernization of the economic structures, the progress of all material production at constant rates, the propagation of the gains of the scientific and technical revolution, the utilization of natural resources in the most efficient manner, and the achievement of high productivity in all social labor are provided by developing and modernizing industry, by promoting technical progress in this branch.

Table 2. The Structure of the Fixed Assets in the Main Branches of the National Economy, Compared with the Total (1) and the Productive Fixed Assets (2)

(%)

Category		1950	1965	1975	1980	1985
Total in the national economy, including:	1	100	100	100	100	100
Productive fixed assets:	1	53.9	61.1	75.3	77.6	77.1
	2	100	100	100	100	100
Industry	1	19.8	31.8	41.6	48.8	47.9
	2	36.8	51.9	57.5	62.9	62.1
Construction	1	0.7	2.4	3.5	3.5	3.1
	2	1.3	4.0	4.9	4.5	4.0
Agriculture	1	19.0	13.5	11.4	9.6	8.9
	2	35.2	22.1	15.8	12.3	11.5
Transportation and telecommunications	1	13.7	10.9	12.1	14.0	14.2
	2	25.4	17.4	16.7	18.0	18.5
The sphere of social and cultural services and of administration	1	46.1	38.9	24.7	22.4	22.9

The growth of the fixed assets in all the branches of the national economy was concretized in the continual growth of them per capita and of the degree of technical equipping of labor (Table 3). According to the data in the table, the value expression of the degree of technical equipping of labor (that is, the fixed assets per employed person) registered significant increases in all the branches presented. A rapid increase was registered in construction--caused by the big tasks that confronted the builders, by the more and more marked trend toward industrialization of this branch, a fact that necessitated the growth of the degree of technical equipping of labor at an average annual rate of 8.57 percent. Agriculture had a similar situation. In this sector, the new production relations created the framework favorable to the expansion of the mechanization of agricultural work and the growth of the areas on which land-improvement work was done, of the irrigated areas, of the pomicultural and viticultural resources and of the zootechnical sector, which had as an effect the growth of the degree of technical equipping of labor at an average annual rate of 8.0 percent in the same period.

A comparative analysis of the average annual rates of growth of the degree of technical equipping of labor, separated into two subperiods (1951-1965 and 1966-1980), brings out the extremely dynamic character of the technical equipping of labor in the period after the ninth party congress. The growth of the degree of technical equipping of labor will also continue during the 1981-1985 5-year period. As was pointed out at the 12th party congress, each inhabitant will be the owner of about 120,000 lei in fixed assets. In 1985, the value of the fixed assets per employed person will rise 46.8 percent in comparison with 1980. Agriculture, transportation and telecommunications will register high rates, which will impart a more and more marked industrial character to the activity performed in these branches.

The qualitative aspects of this process will be strongly marked by the intensification of the furnishing of high-performance machines and equipment, through the progressive integration of precision machinery, electronics and computer technology into the structure of machines and installations. A special accent will be put on creating and using in production types of highly productive, high-precision machine tools with greater speeds, machine sets and multifunctional machines with a high level of automation, significant premises for obtaining higher outputs in manufacturing greater volumes of physical output, along with providing a substantial reduction in the consumptions of fuel and electric power.

Table 3. The Growth of the Fixed Assets per Capita and per Employed Person in the National Economy as a Whole and in Its Main Branches

Category		Growth in the Years:				
		1950	1965	1975	1979	1980
Total fixed assets in the economy per capita	lei per capita	12,691	27,161	56,639	77,979	84,230
	in percent	100	214.0	446.3	614.4	663.7
	in percent		100	208.5	287.1	310.1
Total fixed assets in the economy per employed person, including:	lei per capita	24,710	53,366	118,542	166,599	179,808
	in percent	100	216.0	479.7	674.2	727.7
	in percent		100	222.1	312.2	336.9
a) Industry	lei per person	40,957	88,218	160,971	208,793	
	in percent	100	215.4	393.0	509.8	
	in percent		100	182.3	236.7	
b) Construction	lei per person	7,798	20,356	50,018	84,460	
	in percent	100	261.7	643.1	1,085.9	
	in percent		100	245.7	414.9	
[c) Agriculture]	lei per person	6,335	12,739	27,506	59,101	
	in percent	100	201.1	434.2	932.9	
	in percent		100	215.9	463.9	
d) Transportation and telecommunications	lei per person	150,366	161,453	290,907	375,220	
	in percent	100	107.4	193.5	249.5	
	in percent		100	180.2	232.4	

Data source: Calculated on the basis of data in "Anuarul Statistic al RSR" [The Statistical Yearbook of the Socialist Republic of Romania], 1980, pp 45, 91, 112-113.

Intensive Actions for Increasing the Efficiency of the Investments

The development and modernization of the technical potential and the raising of the production capacity of the country depend not only on the volume and structure of the investments according to branches and component elements but also on the time that passes until their concretization in fixed assets. No matter how great these investments may be, without a corresponding materialization in fixed assets they mean only that significant resources that remain tied up in buildings, stocks of uninstalled equipment and so on have been expended. Consequently, our party's documents stress the necessity of shortening the period for executing the investment facilities, of rapidly transforming the investments into fixed assets and of increasing the degree of materialization of the investments in fixed assets put into operation. The relationship between the funds invested and the fixed assets put into operation is somewhat similar to that between value output and physical output. In other words, just as society has need of physical output and not value output, likewise the satisfying of its needs is accomplished by putting the fixed assets into operation as rapidly as possible and not by making expenditures for investments.

Under the conditions of the constant expansion of our society's technical-material base, one essential orientation for increasing the efficiency of the investments is that with regard to reducing the number of investment facilities, concentrating the forces on the main production facilities and providing a strict ratio between the volume of investment facilities in progress and those that are beginning, so as to not exceed the capacity for execution in a year. These are measures which were undertaken last year on the initiative of the secretary general of the party, Comrade Nicolae Ceausescu, and which are guiding the entire investment activity during the current 5-year period.

The shortening of the periods for carrying out the investment work and putting the new production capacities into operation is influenced by many factors that act on the entire investment process and involve equally the recipients and designers, the suppliers of materials and equipment, the builders and fitters, the financing banks and the holders of investments. In this regard, in the Law for the Adoption of the Sole National Plan for 1981 there are stipulated tasks with regard to providing in the investment documentation, both for the work in progress and for the new work, the most efficient technological and construction solutions that would lead to the reduction of the consumptions of energy-intensive materials, of metal and cement, the limitation of the volume and area of industrial, agricultural and zootechnical constructions and the expansion of the utilization of typified materials and elements of constructions and installations and of local materials and resources. At the same time, measures are provided for the performance of building-assembly work and the ensuring of the delivery of equipment and materials in accordance with the timetables for spreading out the investments, the securing of the work force needed for carrying them out in an optimum manner, the raising of the qualifications of the builders and of the quality of the execution of the work, the participation of the benefiting units in performing the equipment-installation work and in making the tests, the proper exploitation of the facilities put into operation and the investments made, between the new work and the work in progress, the periods for executing the facilities will be shortened--all these things constituting processes with favorable results regarding the growth of material production and national income. Such orientations demonstrate, once again, the party's constant concern for speeding up the country's economic and social activity in accordance with the exigencies for providing qualitative development--a basic objective in the current stage of progress of the Romanian economy.

12,105
CSO: 2700/272

MEASURES TO CONSERVE, RECYCLE PETROLEUM PRODUCTS

Bucharest ROMANIA LIBERA in Romanian 3, 5 Jun 81

[Interview with Valerian Chiorescu, director general of the Central for the Sale of Petroleum Products, by Mircea Scripca]

[3 Jun 81 p 3]

[Text] Making the most efficient use of petroleum products and recycling the used ones are tasks of vital importance in connection with the efforts to further expand the raw material base. We asked Valerian Chiorescu, director general of PECO [Central for the Sale of Petroleum Products], under the Ministry of the Chemical Industry, for some details about the actions taken, the results obtained, and the still unexploited reserves in this field.

[Answer] Besides supplying the beneficiaries with petroleum products, our central is also concerned with the way those products are managed. We all know the importance of petroleum resources to the national economy, so that making the most rational use of them and closing all channels of waste are major obligations. Programs for control of the enterprises and units under our central have also been organized for the purpose.

[Question] What were the findings in the industrial enterprises?

[Answer] A rational use of fuels and lubricants was found in a great many of those enterprises. The Brasov Tractor Enterprise, in order to stop its losses of petroleum products, installed conduits to convey them from the enterprise depot to the sections where they are used. What is more, the Galati Iron and Steel Combine organized a tribology section (lubrication-friction-wear and tear) staffed with specialists who collaborate with the subject research institutes to develop new and better lubricants, in addition to following closely the use of lubrication to maintain the equipment.

But some enterprises are not maintaining some equipment and installations properly and are not making punctual and adequate technical inspections, resulting in greater inputs of fuels and lubricants. The check made at the Bucharest Picture Tube Enterprise showed that the consumption norms for types of equipment and sections have not been set to make the plan for supply of petroleum products as realistic as possible. At the Risnov Tools Enterprise the storage tanks for petroleum products were not calibrated by the metrology organs, so that the actual consumption could not be determined.

And at the Bucharest Steaua Rosie Enterprise the depot was not enclosed or covered, and the oil was leaking out of some of the barrels.

To be sure the PECO control organs took suitable measures to remedy the defects noted, giving the competent elements appropriate instructions for the purpose. But it is the duty of all enterprise managements to pay more attention to these problems, establishing inspection schedules for each machine, lubrication diagrams, and records of the inputs and hours in operation, in order to eliminate waste and prevent overconsumption.

[Question] But what has been done on behalf of better use of the petroleum resources?

[Answer] Among those efforts I mention replacement of diesel oil with light liquid fuel (a product of inferior quality) in many technologies and activities involving processes with a direct flame, and extension of this measure to the sections for drying vegetables, fruits and medicinal plants, to preparation of asphalt mixtures, etc. Most of the economic units have made this substitution, but it is still being held up with no technical-economic justification in a number of units under the Ministry of Forestry Economy and Construction Materials, the Central Union of Consumer Cooperatives etc., and this must be remedied immediately.

The Ministry of the Machine Building Industry and the Ministry of Agriculture and the Food Industry are making a major effort to test the use of diesel oil mixed with crude oil in tractors, leading to considerable savings. I also mention that on the basis of a study made at the Research Center under the Pitesti Passenger Car Enterprise, PECO has started production of type 1 Premial gasoline mixed with methanol and has begun marketing it at the PECO stations in Pitesti municipality. Its manufacture will be continued this year at the Brazi and Borzesti refineries.

[Question] There are also major resources for better use of petroleum products in the transportation field. What steps have been taken in that field, and what remains to be done?

[Answer] In view of the necessity of the most efficient use of fuels and lubricants, important measures have been taken in transportation, among which we mention the concentration of freight transportation in units specialized according to sectors, which arrangement, supported by other measures, has lead to savings of about 30 percent in fuels and lubricants.

Note also the initiative taken by the Automotive Transportation Central under the Ministry of Transportation and Telecommunications, which could be followed in other transport sectors too, of equipping some heavy-tonnage trucks with aerodynamic cabs modified by metal screens installed to reduce the air resistance, thus making savings in fuel of 8-10 percent.

Undoubtedly there are still a good many reserves in this area, from punctual and proper inspection and repair of the motor vehicles to avoid irrational fuel consumption to rerouting of automotive shipping to more economical rail transportation. It would also serve to eliminate waste if better transportation of freight and especially crates were organized in the "full-full" form.

[Question] But there are also other kinds of violations of the regulations in force that waste fuels and lubricants, the most frequent of which is personal use of state-owned motor vehicles.

[Answer] Unfortunately such instances are indeed frequent and call for tighter controls on the part of all the competent organs. The reports of the organs of the National Motor Vehicle Inspectorate show that many drivers are still departing from the routes indicated on their route sheets, make runs for personal reasons, or park motor vehicles at their homes. For example on 5 May 1981 the driver Alexe Milu of the Brasov IIC [Enterprise for Industrial Processing of Meat] was caught departing from his route for personal reasons. The driver Victor Dulgheru of the Zimnicea Trade Enterprise was found to be on a clandestine run, and the driver Ion Cristof of the Arad General Directorate of Agriculture and the Food Industry did not have his route sheet on him in order to conceal his real destination.

Such practices also occur in the villages, where tractors are sometimes used as rural taxis, and also at some construction sites.

Our informant told us in conclusion that elimination of all these violations of the discipline of good management of petroleum products, accompanied by extensive participation of the entire mass of consumers in discovery and application of new ways of using those products efficiently, will lead to exploitation of the existing reserves and to implementation of the party's and state's energy policy with the best possible results.

[5 Jun 81 p 1]

[Text] In a previous issue of our daily we treated the problems of efficient management and use of petroleum products and the necessity of exploiting the existing reserves. Continuing our conversation with Valerian Chiorescu, director general of PECO, we took up another important problem, namely the collection and exploitation of used oils.

[Answer] Recycling such used products as mineral oils is a major concern of our central, and its importance is indicated by the results obtained. By regenerating just 1 ton of common used oil we can save 3 tons of crude oil, from which either petrochemical products or fuels can be obtained. In the case of manufacture of petrochemical products, just 1 ton of conserved crude oil can produce 35 kg of polyvinyl chloride, 10 kg of polyethylene, 5 kg of polypropylene, 20 kg of polystyrene and other products. In the second case, 300 liters of gasoline, 150 liters of diesel oil for diesel engines and other products can be obtained from the same quantity of conserved crude oil.

[Question] What results has the program to collect these oils produced so far?

[Answer] The findings indicate that a good many of the enterprises consuming mineral oils are giving due attention to this program. In the first 5 months of 1981 the Risnov Tools Enterprise, for example, overfulfilled its tasks for collecting used oils by about 80 percent, while the Brasov Bearings Enterprise did so by about 70 percent. Other enterprises also logged overfulfillments of their planned tasks, such as the Suceava ITA [Automotive Transportation Enterprise] (40 percent), the Gura Humorului Mining Combine (35 percent), the Brasov Tractorul Plant (over 30 percent), et al.

But there are other enterprises that are not making the same effort to collect used oils and are below the planned levels. For example the Resita Iron and Steel Combine, the Danube Delta Central, the Cluj Enterprise for Electricity Networks, and the Timisoara Forestry Enterprise for Exploitation and Transportation are about 50 percent short of fulfilling their tasks for collecting these oils. Furthermore, the Cluj IFET [Forestry Enterprise for Exploitation and Transportation], the Chitila Center for Supply and Sales under the MTTc [Ministry of Transportation and Telecommunications], the Bucharest 23 August Plant, the Tirgoviste Special Steels Combine and others have not completely met their obligations. In view of this situation I think the managements of those units should take steps to expedite the program for collection of used oils.

[Question] What measures have been taken to expand recovery of these oils from owners of passenger cars?

[Answer] At present 173 PECO stations are operating in Romania, equipped with installations for extracting used oil from the engines of privately owned passenger cars free of charge, in addition to the service stations also rendering that service. To facilitate transportation of the used oils from the PECO stations and service units to our depots, tank trucks have been equipped with pumps to take up the used oils from the containers at the said stations.

Moreover, we have begun to outfit PECO stations to perform the double service of extracting the used oil from the engines of passenger cars and filling the latter with mineral oil pumped directly into the engine. Besides collecting the used oil, this saves packaging the polyethylene, which is known to be a scarce material. These double service stations have been outfitted in Bucharest in the following areas: Alexandria Highway, Afumati-Colentina, Baneasa (service), Militari (Bucharest-Pitesti Highway), Tabera Road, Titan I, C. Brincoveanu Boulevard, Progresul-Giurgiului, Chitila, and Branesti (Pantelimon Highway). As to effectiveness, in 1 month alone about 48,000 liters of mineral oil were delivered to the 10 PECO stations in Bucharest providing double service, saving a large quantity of polyethylene. Similar stations have also been organized in Craiova, Cluj-Napoca, Brasov, Timisoara, Satu Mare and Sibiu, and they are to be extended to other cities of Romania.

In conclusion our informant told us that by continued efforts to increase the quantities of used oils collected, with more substantial help from the beneficiary enterprises, and by specially emphasizing better use of these products we can help to make some major savings in petroleum products and to exploit new resources essential to the national economy.

5186
CSO: 2700/303

GREATER USE OF INLAND WATERWAYS FOR TRANSPORT STUDIED

Bucharest REVISTA ECONOMICA in Romanian No 23, 5 Jun 81 pp 21-22, 32

[Article by Ion Chiru]

[Text] The energy crisis has again and very pressingly pointed, on a world scale, to the need for using waterways as major transport factors. The middle of this century witnessed an explosive progress of road transportation, a sector which, because of its characteristics -- expeditiousness and swiftness in performing transport, great penetrability to areas which are less accessible or inaccessible to railroad transport, elimination of intermediary handling as the freight can be conveyed directly to the place of production or consumption -- has taken over even a large part of the freight that was "traditionally" transported by the railroad facilities. The soaring prices for energy, especially for energy based on hydrocarbons, has recently necessitated the reappraisal of waterways, one of the first transportation ways known and used by mankind.

What factors have caused, specifically in the current context, waterways to be again assessed as major transport ways?

In the first place, of course, the restrictions in terms of energy, respectively of fuel used.

We must emphasize that our party, whose policy is characterized not only by the ability to resolve the problems raised by each stage of Romania's socioeconomic development but also by a correct and realistic assessment of the perspective, has firmly posed the question of using, for freight transport mainly, the major waterways in this country, even before the appearance of the world energy crisis. The party Program adopted by the 11th Congress provided for the unified management of all water sources, with the projects for watercourse improvement focusing on meeting major needs of the economy and of the population concurrently with transportation needs. Consequently, in December 1975 the Political Executive Committee of the CC of the RCP adopted the "National Long-Term Program for Development of Hydrographic Systems of the Socialist Republic of Romania," a program which the Grand National Assembly adopted and made it into law in April 1976. We also must emphasize that party secretary general Nicolae Ceausescu repeatedly stressed the importance of and need for intensive use of waterways for transportation needs, greater river transportation. Moreover, based on this criterion, along the Danube, beginning from Drobeta-Turnu Severin and as far as Tulcea, major industrial facilities were located, which can use the river waters as the chief way for receiving the supplies of raw materials needed and for shipping their products.

As a result of the investments made, our river shipping system is now being expanded and modernized. For instance, there has been a rise in the operation capacity of our river and sea ports of Braila, Galati and Tulcea by their being provided with highly powerful cranes, the Cernavoda harbor was modernized, new harbors were developed such as the Galati ore port that serves the metallurgical combine in the same locality, the ore harbor of Tulcea or the Mahmudia harbor, and intensive work is proceeding on developing and expanding Sulina harbor. Furthermore, the river fleet received new types of vessels -- powered and non-powered -- and a new technology was used, shipping based on pushing. Comparative figures involving 1980 and 1979 are illustrative. Last year, in the area of river navigation, for instance, the volume of freight shipment rose by 2.65 million tons, the index for utilization of ship capacity went up 15%, and the towing capacity of the river fleet increased by more than 4000 HP. We also must add the hydrographic projects on the Danube (beaconing), maintenance of the waterway, and so forth).

However, the rise in the volume of waterway freight shipment still is far below the potentialities provided by watercourses. For instance, in 1980, river shipment accounted for only 1.6% of the total volume of freight shipment in Romania. Many major industrial units, which could be supplied with raw materials and ship their products by using river vessels, prefer rail shipment. The Turnu Magurele Chemical Fertilizer Combine, for example, for the large quantities of complex fertilizer and urea which it ships to Constanta, Giurgiu, Calafat, Calarasi, Cernavoda and Tulcea, requests rail cars instead of arranging for their river shipment. Likewise, rail shipments bring to Turnu Magurele the almost 200,000 tons of apatite and phosphorite from Constanta. Sugar beet from the areas of Calarasi and Turnu Severin, situated on the Danube bank, is shipped by rail to the sugar factories of Giurgiu and Corabia. The Giurgiu and Calarasi enterprises for prefabricated sections ship their products by rail only, including the zones served by ports. In these cases, not only we do not use an inexpensive transport way but we also unjustifiedly extend the distance and implicitly the duration of transportation.

The river still involves major prospects but they are insufficiently used. Large amounts of ore, coal and other goods are transferred to rail transport facilities in the ports of Braila and Galati instead of being conveyed by ships to the ports of Drobeta-Turnu Severin and Orsova. Not even the transport users always take this into consideration. For example, the grain products from Insula Mare of Braila are loaded in barges, unloaded at the silo in Braila where they are reloaded in railroad cars and shipped to various storage locations in Romania, when it would be far simpler (and more cost-efficient!) to ship them, once they are loaded in barges, directly, by these facilities, to storage locations situated also on the Danube bank and to ship to silos in the country, by train, the grain from inland localities.

Such examples again point out the need for the proper agencies to display better management habits and prohibit such transport that is uneconomical for both the recipient enterprises and for the overall economy.

Certainly, the Danube is the chief navigable waterway of our country. Under this five-year plan, added to it will be the Danube-Black Sea Canal, which, while considerably shortening the transportation distance for a wide array of [illegible]s will also insure a significant reduction of transportation costs. The [illegible]tensive use of the Danube for transport and with significant savings for the economy is, however, tied to expanded use of inland waterways for transport. Promotion of conveyance on the main rivers, by using the extremely favorable geographic configuration of our country has been an old concern here. We have in mind not only the intensive rafting on Bistrita and Siret rivers, specifically, but also other facets. For instance, in 1834, the General Assembly of Wallachia decided on "conducting surveys of rivers which are easier to navigate" and even determined the navigation rates on Olt river and in 1857 and 1861, the little ship "Prince Vogoride" was performing, with two barges, shipments of salt and other goods, on Siret river, from Vadul Rosca and Calieni, to Galati. Also known are many surveys for using inland rivers for transport, besides the Danube, Prut, Siret, Mures, Timis, Bega, Jiu, Olt, Ialomita and even the Buzau small river. As early as in 1913, Prof Engr A. Davidescu even studied the development of a sub-Carpathian waterway from Turnu Severin, along Oltenia, Muntenia and southern Moldavia, with connection to the Danube, around Braila, for 2500-ton ships.

During the last decade, based on the directives given by the top party executives, thorough studies were conducted in this area, with surveyors including the Institute for Technological Research and Design for Transportation (ICPTT) and the Design Institute for Automotive, Maritime and Air Transportation (IPTANA); furthermore, the efforts of all ministries and territorial bodies concerned resulted in the formulation of a plan for the development of the Romanian hydrographic system, with the plan including and treating the shipping issues. This manner of tackling the matter, by considerably broadening the area of users and consequently the amortization of the investments required, significantly reduces the shipping costs and, hence, encourages the involvement of a far greater amount of freight.

The development of Romanian inland waters for shipping also by construction of intermediary waterways, the creation of a comprehensive navigable system, hence appears as a pressing need for our country and its economy. This resolves paramount problems, namely, in terms of transport -- considerable reduction of the necessary amount of fuel and energy involved in the case of using railroads or highways, significant reduction of consumption rates for metal and other materials for building transport facilities, to list only a few of the major aspects. The great emphasis which is being placed today with good reason on economic efficiency in all economic and social areas in Romania is another weighty argument to make the efforts needed for using Romanian waterways for transport.

11710
CSO: 2700/302

FLOOD PREVENTION, WARNING MEASURES DEVELOPED

Bucharest REVISTA ECONOMICA in Romanian No 23, 5 Jun 81 pp 25-26

[Article by Lecturer Dr Engr M. Podani, secretary of the Central Commission for Protection Against Flood Under the National Council for Water Resources]

[Text] Undoubtedly, flood is one of the most destructive natural phenomena.

A specific facet of the potential damages of flood is the tendency to grow in time, at the same level of the flood, as a result of the fact that socioeconomic development coincides with the increase in the number and importance of the facilities that may be affected. This rise in potential damages is proportional to the rate of economic development, averaging 8-10 percent a year.

The detailed analysis made recently of the status of protection against flood, based on insurance of normed calculation according to the class of importance of the facilities subject to inundation, indicated that as a result of the hydrographic projects completed and the measures for protection against flood taken so far, protected, in light of their class of importance, are 909 localities including 28 municipalities, 66 towns and 814 communes. These also were the most seriously affected in the past, as is the case of the localities Satu Mare, Dej, Beclean, Sighisoara, Tg. Mures, Reghin, Ocna Mures, Deva, Tirnaveni, Copsa Mica, Odorhei, Alba Iulia, Medias, Arad, Turda, Vaslui, Tg. Neamt, Roman, Pascani, Slobozia, Urziceni, and others.

Also protected, against flood whose levels equal those of 1970 and 1975, but below normal insurance or only partially, are another 791 localities including 24 municipalities, 72 towns and 695 communes, with 1700 localities being almost completely protected. Out of the 9504 potentially floodable economic facilities, protected in light of their class of importance are 3871 facilities, and another 3929 facilities are protected against inundations like the greatest known in the last decades, but under their class of importance.

In terms of farmland, protected are 874,000 ha in their class of importance, to which are added another 280,000 ha protected a little below the level of normal insurance.

It follows that in an historically very short span of time projects were completed at a rate without precedent in our entire existence, the result of efforts guided by our party and state, which give priority to the basic interests of the people. For instance, the 1976-1980 period, as the first stage of the National Program for Development of Hydrographic Systems, saw the completion of storage lakes designed to reduce flood, with a volume of more than 2 billion cu m, damming and modification of river beds over 2300 km of watercourses, the drained areas increased by 600,000 ha, projects for controlling soil erosion were completed on about 900,000 ha and torrent correction, on 370 km, combined with afforestation on about 30,000 ha, with the afforestation rate being maintained around the value of 26 percent.

The outstanding achievements resulted in the fact that the high water on the rivers in western and central Romania in March 1981 and on the Danube in March-April 1981, although they had unusual levels, did not cause great damage or loss of human lives. This success stemmed primarily from the projects and the expeditious protective measures.

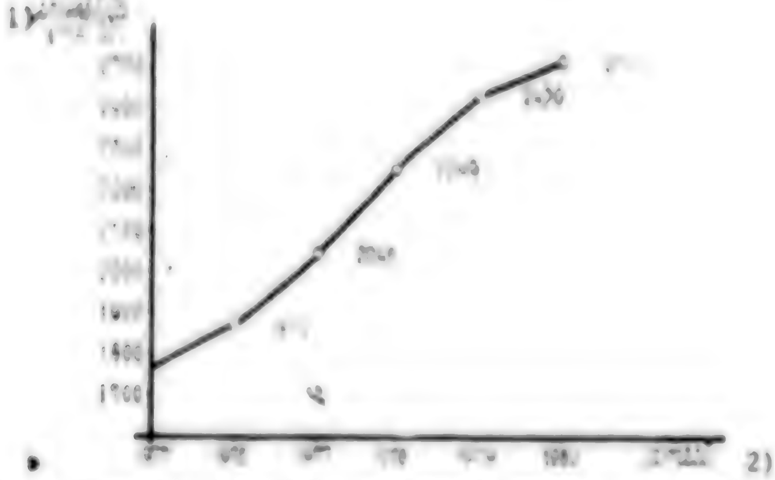
In spite of these accomplishments, the problem is still posed of protecting, in their class of importance, all localities, economic facilities and farmland still subject to inundation. The rate of construction of water storage facilities in relationship to damming and improvements ought to be accelerated for the purpose of reducing the effect of hastened runoff of high water, specifically by development of temporary storage facilities, which would not withdraw large areas from common use for farming.

The flood of 1980 and 1981, that specifically involved western Romania, pointed out the serious damage that can be caused by runoff on slopes and excessive moisture in depression areas as well as the interception, without adequate stock of some torrential valleys, with nonpermanent run-off, by public roads. It was found that some localities are floodable as a result of heavy runoff on slopes even if these slopes are protected against flood from the inundation of adjacent watercourses. It is necessary to more rapidly promote the projects for canalization for rain water, specified in the redevelopment charts approved.

However, it must be emphasized that the location of new economic facilities, the expansion of localities in the major streambed of watercourses, in usually floodable areas must be avoided, because even by completing local protective projects, the potential inundation hazard persists and the free runoff of highwater is considerably hampered. We must stress here the correct interpretation of the risk factors that objectively accompany any protective project. For instance, in accordance with worldwide procedures and local provisions, any prevention project is sized at a specific rate of calculation, with the statistical insurance corresponding to the class of importance of the facilities protected.

For instance, an economic facility may be protected at a rate with normed statistical probability, say 1 percent, that is a centennial frequency of occurrence. However, this may occur even in the years following construction. The risk is admitted that when this level is exceeded the facility involved is flooded, because it is more profitable to rebuild it than to size the preventive project above normed insurance, when the costs rise excessively. Therefore, no facility can be regarded as perfectly protected and it is desirable to avoid costly preventive projects that involve incorrect location of facilities.

For the purpose of maximizing the safety of preventive projects and avoiding damage in floodable areas without protection projects a set of prompt protective measures are applied. They involve in the first place creation of a hydrometeorologic computer system for warning and forecarting of the dangerous levels and of a prompt decision-making computer system. Moreover, the prompt measures that should be taken for various degrees of dangerousness in order to minimize the adverse effects of high water are predetermined. These preventive measures are important factors, because we noted average reductions of 40-50% in economic damage and avoidance of loss of human life.



Dinamica investiţiilor pentru lucrări de apărare împotriva inundaţiilor în perioada 1976–1980

Evolution of Investments for Flood Prevention Projects During 1976-1980 Period

Key:

1. Investments (million lei)
2. Year

In the context of prompt development of flood prevention programs, measures were also taken to minimize the destructive effects of inundation. We place special emphasis on our state's major efforts to improve the computer system in the area of water resources by expansion of the hydrometric network, supplementation of the work programs, provision of up-to-date installations of telecommunications and measurement of the parameters of hydrometeorological phenomena. For instance, we have more than 1500 pluviometric centers, 170 meteorological stations, 48 hydrological stations with about 750 hydrometric centers. There were installed about 1200 radiotelephones of Romanian make, most of them independent of the electric system. Seven meteorological radars were installed. They permit monitoring of the cloud formations and extension of the anticipatory time of hydrometeorological forecasts. We have access to some satellite data which provide information over vast spaces on atmospheric flow, but these means of remote detection of rain fronts do not yet meet the needs and technical potentialities, because of the effort in terms of foreign currency involved.

Completed and partially in operation is the automated system for information and warning on flood danger in the upper basin of Mures River and under way of completion are similar systems in the basins of Arges, Buzau and Siret rivers. Moreover, small computer centers were set up in some territorial units for management of water resources for the processing of hydrometeorological and water management data in hydrographic systems. Experts developed mathematical programs and models of the rain-flow type and for propagation of flood waves in river beds, and for calculation of the effect of damage to hydrotechnical structures.

During the 2 March-7 April 1981 period, when very high flood occurred on the Danube, the reporting of the forecast values of the levels in various characteristic points on the Danube with anticipation of up to 10 days permitted taking of measures to reinforce the existing dams at the weaker locations and measures against wave erosion on almost 600 km and new local dams were built over about 64 km. This resulted in saving facilities of outstanding economic importance and 400,000 ha of farmland.

[illegible]
CSO: 5200/402

LACK OF MOSQUITO CONTROL, CASES OF MALARIA REPORTED IN MACEDONIA

Skopje NOVA MAKEDONIJA in Macedonian 12 Jun 81 p 9

[Text] Cases of malaria have been registered in the city of Skopje and there is an even greater number of sick people in the surrounding area. Thus a greater involvement is necessary on the part of all the concerned institutions in the city so that we may welcome the summer without mosquitos.

The Station for Disinfection, Extermination and Deratization of the Institute for Protection of Health as early as April began the battle for the elimination of the insects, especially of the mosquitoes, from the Skopje area. The marshes and swamps were sprayed along with the banks of the Vardar river, from Glumovo to Trubarevo, in order to destroy the breeding places of these insects. An area of 10 hectares was covered, but it seems that this was not sufficient. The truth is that this territory will be sprayed again in August, but every 15 days new insects are born. So much for destroying their beds. And when they are grown a different kind of extermination is carried out. In order for it to have an effect in eliminating them it must be done every 15 or 20 days, meaning that the territory of the city must be sprayed at least three times. But not until the beginning of July will an area of more than 4,000 hectares be covered by one spraying by airplane.

This year the Station for Disinfection, Extermination and Deratization received funds from the City Assembly in the amount of 1.65 million dinars, an increase over last year. However, considering that, according to Vaso Mirocevik, the director of the station, insecticides and other materials have gotten more expensive and the funds must be divided between extermination of insects, rodents, causes of intestinal and other infectious diseases, there is not much left for extermination of mosquitoes. For example, fogging by airplane and the preparations necessary for one spraying cost about 700,000 dinars, or almost half of the allotted funds.

"The city covers an area of 20,000 to 25,000 hectares and the minimum area that must be sprayed in order to provide lasting results is 10,000 hectares. Also, for effective elimination of the mosquitoes, from May to September, the city must be sprayed eight times, including fogging and air spraying by airplane. For example let's take Belgrade, which lies on two rivers, as much water area as you could want. But a mosquito can usually only be found as an example. The city is sprayed seven times in 2 months and in the winter months they take action to destroy the beds in the parks, manholes, stables, cellars and anywhere mosquitoes spend the winter. Of course all this requires financial means in order to take care of the specially formed staff for insect extermination," [illegible] explained. We can also mention Kocani, where the rice fields are homes for the mosquitoes, yet here you only come across insects from time to time.

This year again the old request of the health workers is being repeated, that more funds be allotted for extermination of mosquitoes, all the more so because there exists the theoretical possibility of malaria spreading again through Europe, as well as here, Dr Georgi Dacev, director of the Epidemiological department told us. Although the mosquito that carries this serious disease is difficult to exterminate as a biological type, prevention nevertheless plays a large role. However, this year we cannot expect more funds, even though the question was placed before the delegates in both the city and opstina assemblies.

Without questioning their consideration that the funds were allotted for this purpose last year, now an essential question is being posed: is it impossible, if the situation is judged to be one of great concern. The assembly and the other institutions should additionally intervene with whatever amount of funds is truly necessary. In this way, if the current situation remains, and this is what the people who work in this area are indicating, then this year again our citizens will have to be concerned with the problem of insects, which were numerous and of all varieties in our homes last year.

Must we stand with folded hands and watch them while they crawl on the ceilings, on the floors, on the walls...

[illegible] 5400/9118

KOSOVO FOREIGN TRADE IN FIRST 4 MONTHS OF 1981

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 10 Jul 81 p 3

[Text] The Resolution on Kosovo's Socioeconomic Development in 1981 and the projection of the province's payments-balance position have given a priority place to foreign economic relations, and exports are moreover to be a significant factor in economic stabilization. However, visible foreign trade over the first 4 months of this year has not been up to expectations. The most disturbing fact is that in this period deliveries to customers in the advanced countries of the West are down 51 percent over the same period of last year, which is having a very adverse effect on the inflow of foreign exchange and is seriously jeopardizing the supply of raw materials, intermediate products and spare parts to the province's economy.

This failure to meet the export target has brought about a 1.4-percent drop in the level of coverage of imports by exports: Over the first 4 months of this year exports covered 53 percent of imports, and in trade with the convertible market the coverage was only 21 percent.

At the same time dynamic growth of visible exports to the bilateral payment area (index number [illegible]) has continued in this period, and this can be regarded as satisfactory.

Importation of the Most Indispensable Articles

Total imports of the province's economy over the first 4 months of this year were down 5 percent from last year, which is above all the consequence of low exports and restrictive measures adopted at the national level and having to do with restriction on imports of equipment. Purchases from the convertible area were particularly large since the regional and industrial pattern of imports tie them to the markets of the advanced countries of the West, the United States and Canada. In the distribution of imports the dominant place is taken by raw materials and intermediate products (62 percent), equipment (34 percent), while imports of consumer goods were at last year's level (4 percent).

The value of imports, which is 3.5 billion dinars, considerably exceeds the value of exports, which has contributed to the 1.6-billion-dinar trade deficit over the first 4 months, so that the surplus with the bilateral payment area could not essentially offset the adverse trends in the province's foreign economic relations.

Causes and Measures

The unfavorable price structure and high rise of prices on the domestic market are the principal reasons why economic organizations in Kosovo did not have sufficient incentive based on income to market their goods outside the country. The absence of a lasting and firm orientation toward exports, the incompleteness of the arrangements embodying the system and of incentive measures have adversely affected overall results in this domain. When we add the rather high burden on exporters, as well as the low effectiveness of the foreign trade network, then one can understand why the Kosovo economy is slow to become part of the international division of labor. It is also significant that organizations of associated labor which are predominant and traditional exporters--nonferrous metallurgy, metal manufacturing, textiles, the chemical industry, the timber and lumber industry, and the leather and footwear industry--because of the recession on the world market and the high demand on the domestic market have not been able and will not be able this year to achieve the planned export figures, especially to the convertible market.

To illustrate, of the 110 organizations of associated labor in the province which have export and import plans, only 10 have fulfilled export obligations. In view of the adverse situation, especially in the export sector, delegates to the assembly of the Kosovo Economic Chamber called at their last meeting for full mobility of all responsible entities in the economy of the province to find appropriate solutions in this area. They particularly insisted on the need to reorient the Kosovo economy toward maximum exports to the convertible market, including the markets of the developing countries.

Exports planned for this year, it was said in the Kosovo Economic Chamber, must be achieved, since otherwise a portion of the province's economy could be paralyzed, and this would have unforeseeable consequences.

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INVESTMENT IN FIXED ASSETS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 2 Jul 81 p 5

[Text] The tendency of a slower growth of investments, which began at the beginning of the year, has continued in the second quarter. Total investments in fixed capital over the first 5 months rose 21 percent in nominal terms over the same period of last year. However, when this rate is adjusted for the rise in the prices of building materials, equipment and services in construction and the crafts and trades, it can be said that investments have dropped about 20 percent in real terms.

This trend of outlays for investment projects is considerably more favorable than trends in previous years, but it is still not altogether in conformity (especially in its structure) to the aims of economic policy in this sector of spending, since the Resolution on Basic Guidelines and Limits of the Policy of Socioeconomic Development in 1981 called for the real level of investments in fixed capital to be lower than in 1981 and for the value of investments in nonproduction and noneconomic projects, excluding investments in housing construction, to drop by 30 percent.

It has accordingly been provided that organizations of associated labor, self-managed communities of interest and banks will reassess decisions already made, will ascertain possible overruns and will take steps to bring investments into line with resources actually available. In addition, investors and banks were required by the end of March to halt or postpone construction of projects under way which are not important to altering the material structure of production, to augmenting exports or to import substitution.

When investments over the first 5 months are classified by source, resources from organizations of associated labor in the economy were up 25 percent in nominal terms over the same period of last year, resources from organizations of associated labor and noneconomic activities were up 16 percent, those of self-managed communities of interest were up 13 percent, and bank resources 15 percent, while investments made from resources of sociopolitical communities were down 13 percent. This reduction is mostly the result of the measures embodying the system aimed at reducing the functions of sociopolitical communities in the domain of expanded reproduction and at transferring them to associated labor. This especially applies to the Federation, whose share in total investments has been reduced to a very low amount this year.

Investments in Fixed Capital, in millions of dinars

Sources of Financing	May 81	Jan-May 81	May 81 May 80	Jan-May 81 Jan-May 80
Investments, total	37,548	178,698	125	121
OUR's [organization of associated labor] in the economy	13,421	61,374	140	125
OUR's in noneconomic activity	3,496	16,265	121	116
Self-managed communities of interest	1,807	7,351	121	113
Banks	14,949	80,172	103	115
Lending through banks	3,241	11,349	304	209
Sociopolitical communities	634	2,187	133	87
Breakdown:				
Opstinas	392	1,288	151	104
Republics and provinces	185	726	164	85
Federation	57	173	54	41

The slower growth of investments from bank resources is the result of reduced liquidity and declining credit potential of the banks because of the restrictive measures adopted by the Yugoslav National Bank. In addition, reduction of the investment potential of the banks was also affected by regulations restricting the possibility of siphoning off short-term funds for investment projects. Since the measures adopted are lasting ones, we can expect that investments from bank resources will show a slower growth than from other sources in coming months as well.

Housing construction occupies an important place in investments made from bank resources, since the outlays of the banks for this purpose reached an amount of 25 billion dinars over the first 5 months, which is 37 percent more than in the same period of last year. Since economic policy measures did not call for any restriction on this form of expenditure, it is expected that intensive credit financing of housing construction will continue in coming months as well.

Outlays for investments over the first 5 months, broken down by republics and provinces, rose 26 percent in Bosnia-Hercegovina, 88 percent in Montenegro, 16 percent in Croatia, 28 percent in Macedonia, 12 percent in Slovenia and 19 percent in Serbia. Within Serbia as a whole Serbia proper showed a growth of 19 percent, Vojvodina a growth of 30 percent, and Kosovo a 9-percent reduction compared to the same period of last year.

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PROBLEMS IN KOSOVO NONFERROUS METALS PRODUCTION

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 2 Jul 81 p 8

[Text] The planning targets for production of nonferrous metals in the Province of Kosovo were not met in the last medium-term period. The adverse trends in this industrial sector were affected by a number of objective difficulties, but also by subjective shortcomings. The main reasons why the expected results could not be achieved in the production of lead and zinc ore in that period were the lack of financial resources, the low content of metal in the ore, delayed construction of new capacities and inadequate utilization of existing capacities.

Because of the reduced production of lead and zinc the smeltery at Zvecan was unable to produce the planned amount of concentrates of these metals, which adversely affect the overall business operation of the Trepca Combine; in addition, the production of chromium ore was also very low, primarily because a market had not been found for the fine concentrate, and this was instrumental in withdrawal from the investment to round out the technology in the production of this ore.

At the same time the geological conditions for exploitation of bauxite have grown steadily worse, and this contributed considerably to the decline of metal in the last medium-term period.

In view of the importance of the production of nonferrous metals to Kosovo's rapid progress, the agreement on the bases of the social plan for development of the extractive industry called for substantial investments to speed up this economic sector. More than 2 billion dinars will be invested in geological-mining explorations for lead and zinc ore and about 118 million dinars to explore for chromite. At the same time continuation of explorations for nickel, bauxite and other metals is planned.

More than 3 billion dinars will be invested just in the reconstruction and modernization of existing facilities and construction of new ones to achieve the projected growth rate of production of lead and zinc over the next 5 years. Plans also call for the work force in the mining industry to reach 9,000 by the end of the current 5-year period, i.e., 700 new workers would find jobs in this sector by 1985.

Investments of 4.6 billion dinars are planned for lead and zinc metallurgy in Zvecan over the next 5 years, 80 percent of which would be invested in reconstruction and modernization of existing facilities and 20 percent in new facilities which would employ about 200 workers. The planned production of feronickel presupposes additional investments of about 4 billion dinars over the estimated cost. At the same time construction of the mine and flotation plant at Glogovac has been undertaken; it will employ 1,518 workers. Since chromium production has up to now been primarily based on imported ore, in the current medium-term period plans call for a higher share of our own raw materials, and therefore 180 million dinars will be invested in geological explorations.

Though certain examinations have already been made, the growth rate and volume of production of bauxite in the province have not been definitively set. It is calculated that the annual output of this ore might be about 100,000 tons, which would at the same time yield another 300,000 tons of limestone from the separation process for various purposes. It is expected that investments should be 300 million dinars for this planned output of bauxite and limestone in the province up to 1985.

Total investments for the planned volume of output of nonferrous metals in Kosovo over the period 1981-1985 will amount to 12.5 billion dinars, and investments in geological and mining explorations 2.5 billion dinars.

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